SUPPLEMENT

TO THE

AMERICAN NAUTICAL ALMANAC

FOR THE YEAR

1914

PUBLISHED BY THE NAUTICAL ALMANAC OFFICE, U. S. NAVAL OBSERVATORY, UNDER THE AUTHORITY OF THE SECRETARY OF THE NAVY. SOLD BY THE SUPERINTENDENT OF DOCUMENTS, GOVERNMENT PRINTING OFFICE, WASHINGTON, D. C.

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PREFACE.

In this supplement, tables giving Mean Time of Sidereal Noon and Mean Time of Transit of fifty-five stars, and a star chart, which were not included in the supplement for 1913, have been added.

It is proposed to issue a supplement similar to this one for the 1915 Almanac, possibly with other changes, and to issue the 1916 Almanac in revised form.

Suggestions as to improving the future editions will be appreciated.

J. L. JAYNE,
Captain U. S. N.,
Superintendent Naval Observatory.

U. S. NAVAL OBSERVATORY, *October, 1913.*

CONTENTS.

Day of Month.	Right Ascension of the Mean Sun at Greenwich Mean Noon.					
	January.	February.	March.	April.	May.	June.
	h m s	h m s	h m s	h m s	h m s	h m s
1	18 41 10.2	20 43 23.5	22 33 47.0	0 36 0.2	2 34 16.8	4 36 30.1
2	18 45 6.7	20 47 20.0	22 37 43.6	0 39 56.8	2 38 13.4	4 40 26.7
3	18 49 3.3	20 51 16.6	22 41 40.1	0 43 53.3	2 42 10.0	4 44 23.2
4	18 52 59.9	20 55 13.1	22 45 36.7	0 47 49.9	2 46 6.5	4 48 19.8
5	18 56 56.4	20 59 9.7	22 49 33.2	0 51 46.4	2 50 3.1	4 52 16.3
6	19 0 53.0	21 3 6.3	22 53 29.8	0 55 43.0	2 53 59.6	4 56 12.9
7	19 4 49.5	21 7 2.8	22 57 26.4	0 59 39.5	2 57 56.2	5 0 9.5
8	19 8 46.1	21 10 59.4	23 1 22.9	1 3 36.1	3 1 52.7	5 4 6.0
9	19 12 42.7	21 14 55.9	23 5 19.5	1 7 32.6	3 5 49.3	5 8 2.6
10	19 16 39.2	21 18 52.5	23 9 16.0	1 11 29.2	3 9 45.8	5 11 59.1
11	19 20 35.8	21 22 49.0	23 13 12.6	1 15 25.7	3 13 42.4	5 15 55.7
12	19 24 32.3	21 26 45.6	23 17 9.1	1 19 22.3	3 17 39.0	5 19 52.2
13	19 28 28.9	21 30 42.2	23 21 5.7	1 23 18.8	3 21 35.5	5 23 48.8
14	19 32 25.4	21 34 38.7	23 25 2.2	1 27 15.4	3 25 32.1	5 27 45.4
15	19 36 22.0	21 38 35.3	23 28 58.8	1 31 12.0	3 29 28.6	5 31 41.9
16	19 40 18.6	21 42 31.8	23 32 55.3	1 35 8.5	3 33 25.2	5 35 38.5
17	19 44 15.1	21 46 28.4	23 36 51.9	1 39 5.1	3 37 21.7	5 39 35.0
18	19 48 11.7	21 50 24.9	23 40 48.4	1 43 1.6	3 41 18.3	5 43 31.6
19	19 52 8.2	21 54 21.5	23 44 45.0	1 46 58.2	3 45 14.9	5 47 28.2
20	19 56 4.8	21 58 18.0	23 48 41.6	1 50 54.7	3 49 11.4	5 51 24.7
21	20 0 1.3	22 2 14.6	23 52 38.1	1 54 51.3	3 53 8.0	5 55 21.3
22	20 3 57.9	22 6 11.1	23 56 34.7	1 58 47.8	3 57 4.5	5 59 17.8
23	20 7 54.5	22 10 7.7	0 0 31.2	2 2 44.4	4 1 1.1	6 3 14.4
24	20 11 51.0	22 14 4.3	0 4 27.8	2 6 40.9	4 4 57.6	6 7 11.0
25	20 15 47.6	22 18 0.8	0 8 24.3	2 10 37.5	4 8 54.2	6 11 7.5
26	20 19 44.1	22 21 57.4	0 12 20.9	2 14 34.1	4 12 50.8	6 15 4.1
27	20 23 40.7	22 25 53.9	0 16 17.4	2 18 30.6	4 16 47.3	6 19 0.6
28	20 27 37.3	22 29 50.5	0 20 14.0	2 22 27.2	4 20 43.9	6 22 57.2
29	20 31 33.8	22 33 47.0	0 24 10.5	2 26 23.7	4 24 40.4	6 26 53.7
30	20 35 30.4	22 37 43.6	0 28 7.1	2 30 20.3	4 28 37.0	6 30 50.3
31	20 39 26.9	22 41 40.1	0 32 3.6	2 34 16.8	4 32 33.5	6 34 46.9

CORRECTION TO BE ADDED TO R. A. M. S. AT G. M. N. FOR TIME PAST NOON.

Time.	0m	6m	12m	18m	24m	30m	36m	42m	48m	54m	60m	Time.
h	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	h
0	0 0.0	0 1.0	0 2.0	0 3.0	0 3.9	0 4.9	0 5.9	0 6.9	0 7.9	0 8.9	0 9.9	0
1	0 9.9	0 10.8	0 11.8	0 12.8	0 13.8	0 14.8	0 15.8	0 16.8	0 17.7	0 18.7	0 19.7	1
2	0 19.7	0 20.7	0 21.7	0 22.7	0 23.7	0 24.6	0 25.6	0 26.6	0 27.6	0 28.6	0 29.6	2
3	0 29.6	0 30.6	0 31.5	0 32.5	0 33.5	0 34.5	0 35.5	0 36.5	0 37.5	0 38.4	0 39.4	3
4	0 39.4	0 40.4	0 41.4	0 42.4	0 43.4	0 44.4	0 45.3	0 46.3	0 47.3	0 48.3	0 49.3	4
5	0 49.3	0 50.3	0 51.3	0 52.2	0 53.2	0 54.2	0 55.2	0 56.2	0 57.2	0 58.2	0 59.1	5
6	0 59.1	1 0.1	1 1.1	1 2.1	1 3.1	1 4.1	1 5.1	1 6.0	1 7.0	1 8.0	1 9.0	6
7	1 9.0	1 10.0	1 11.0	1 12.0	1 12.9	1 13.9	1 14.9	1 15.9	1 16.9	1 17.9	1 18.9	7
8	1 18.9	1 19.8	1 20.8	1 21.8	1 22.8	1 23.8	1 24.8	1 25.7	1 26.7	1 27.7	1 28.7	8
9	1 28.7	1 29.7	1 30.7	1 31.7	1 32.7	1 33.6	1 34.6	1 35.6	1 36.6	1 37.6	1 38.6	9
10	1 38.6	1 39.6	1 40.5	1 41.5	1 42.5	1 43.5	1 44.5	1 45.5	1 46.5	1 47.4	1 48.4	10
11	1 48.4	1 49.4	1 50.4	1 51.4	1 52.4	1 53.3	1 54.3	1 55.3	1 56.3	1 57.3	1 58.3	11

Day of Month.	Right Ascension of the Mean Sun at Greenwich Mean Noon.					
	July.	August.	September.	October.	November.	December.
	h m s	h m s	h m s	h m s	h m s	h m s
1	6 34 46.9	8 37 0.2	10 39 13.4	12 37 30.0	14 39 43.2	16 37 59.9
2	6 38 43.4	8 40 56.7	10 43 9.9	12 41 26.5	14 43 39.7	16 41 56.4
3	6 42 40.0	8 44 53.3	10 47 6.5	12 45 23.1	14 47 36.3	16 45 53.0
4	6 46 36.5	8 48 49.8	10 51 3.0	12 49 19.6	14 51 32.8	16 49 49.6
5	6 50 33.1	8 52 46.4	10 54 59.6	12 53 16.2	14 55 29.4	16 53 46.1
6	6 54 29.7	8 56 42.9	10 58 56.1	12 57 12.8	14 59 26.0	16 57 42.7
7	6 58 26.2	9 0 39.5	11 2 52.7	13 1 9.3	15 3 22.5	17 1 39.2
8	7 2 22.8	9 4 36.0	11 6 49.2	13 5 5.9	15 7 19.1	17 5 35.8
9	7 6 19.3	9 8 32.6	11 10 45.8	13 9 2.4	15 11 15.6	17 9 32.4
10	7 10 15.9	9 12 29.2	11 14 42.4	13 12 59.0	15 15 12.2	17 13 28.9
11	7 14 12.4	9 16 25.7	11 18 38.9	13 16 55.5	15 19 8.7	17 17 25.5
12	7 18 9.0	9 20 22.3	11 22 35.5	13 20 52.1	15 23 5.3	17 21 22.0
13	7 22 5.6	9 24 18.8	11 26 32.0	13 24 48.6	15 27 1.8	17 25 18.6
14	7 26 2.1	9 28 15.4	11 30 28.6	13 28 45.2	15 30 58.4	17 29 15.1
15	7 29 58.7	9 32 11.9	11 34 25.1	13 32 41.7	15 34 55.0	17 33 11.7
16	7 33 55.2	9 36 8.5	11 38 21.7	13 36 38.3	15 38 51.5	17 37 8.3
17	7 37 51.8	9 40 5.0	11 42 18.2	13 40 34.8	15 42 48.1	17 41 4.8
18	7 41 48.4	9 44 1.6	11 46 14.8	13 44 31.4	15 46 44.6	17 45 1.4
19	7 45 44.9	9 47 58.2	11 50 11.3	13 48 28.0	15 50 41.2	17 48 57.9
20	7 49 41.5	9 51 54.7	11 54 7.9	13 52 24.5	15 54 37.7	17 52 54.5
21	7 53 38.0	9 55 51.3	11 58 4.4	13 56 21.1	15 58 34.3	17 56 51.1
22	7 57 34.6	9 59 47.8	12 2 1.0	14 0 17.6	16 2 30.9	18 0 47.6
23	8 1 31.1	10 3 44.4	12 5 57.6	14 4 14.2	16 6 27.4	18 4 44.2
24	8 5 27.7	10 7 40.9	12 9 54.1	14 8 10.7	16 10 24.0	18 8 40.7
25	8 9 24.3	10 11 37.5	12 13 50.7	14 12 7.3	16 14 20.5	18 12 37.3
26	8 13 20.8	10 15 34.0	12 17 47.2	14 16 3.8	16 18 17.1	18 16 33.9
27	8 17 17.4	10 19 30.6	12 21 43.8	14 20 0.4	16 22 13.7	18 20 30.4
28	8 21 13.9	10 23 27.2	12 25 40.3	14 23 56.9	16 26 10.2	18 24 27.0
29	8 25 10.5	10 27 23.7	12 29 36.9	14 27 53.5	16 30 6.8	18 28 23.5
30	8 29 7.0	10 31 20.3	12 33 33.4	14 31 50.1	16 34 3.3	18 32 20.1
31	8 33 3.6	10 35 16.8	12 37 30.0	14 35 46.6	16 37 59.9	18 36 16.7

CORRECTION TO BE ADDED TO R. A. M. S. AT G. M. N. FOR TIME PAST NOON.

Time.	0^m	6^m	12^m	18^m	24^m	30^m	36^m	42^m	48^m	54^m	60^m	Time.
h	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	h
12	1 58.3	1 59.3	2 0.2	2 1.2	2 2.2	2 3.2	2 4.2	2 5.2	2 6.2	2 7.1	2 8.1	12
13	2 8.1	2 9.1	2 10.1	2 11.1	2 12.1	2 13.1	2 14.0	2 15.0	2 16.0	2 17.0	2 18.0	13
14	2 18.0	2 19.0	2 20.0	2 20.9	2 21.9	2 22.9	2 23.9	2 24.9	2 25.9	2 26.9	2 27.8	14
15	2 27.8	2 28.8	2 29.8	2 30.8	2 31.8	2 32.8	2 33.8	2 34.7	2 35.7	2 36.7	2 37.7	15
16	2 37.7	2 38.7	2 39.7	2 40.7	2 41.6	2 42.6	2 43.6	2 44.6	2 45.6	2 46.6	2 47.6	16
17	2 47.6	2 48.5	2 49.5	2 50.5	2 51.5	2 52.5	2 53.5	2 54.5	2 55.4	2 56.4	2 57.4	17
18	2 57.4	2 58.4	2 59.4	3 0.4	3 1.4	3 2.3	3 3.3	3 4.3	3 5.3	3 6.3	3 7.3	18
19	3 7.3	3 8.3	3 9.2	3 10.2	3 11.2	3 12.2	3 13.2	3 14.2	3 15.2	3 16.1	3 17.1	19
20	3 17.1	3 18.1	3 19.1	3 20.1	3 21.1	3 22.1	3 23.0	3 24.0	3 25.0	3 26.0	3 27.0	20
21	3 27.0	3 28.0	3 29.0	3 29.9	3 30.9	3 31.9	3 32.9	3 33.9	3 34.9	3 35.9	3 36.8	21
22	3 36.8	3 37.8	3 38.8	3 39.8	3 40.8	3 41.8	3 42.8	3 43.7	3 44.7	3 45.7	3 46.7	22
23	3 46.7	3 47.7	3 48.7	3 49.7	3 50.6	3 51.6	3 52.6	3 53.6	3 54.6	3 55.6	3 56.6	23

Day of Month.	Mean Time of Sidereal Noon at Greenwich.					
	January.	February.	March.	April.	May.	June.
	h m s	h m s	h m s	h m s	h m s	h m s
1	5 17 57.6	3 16 4.3	1 25 58.8	23 20 9.8	21 22 12.5	19 20 19.3
2	5 14 1.7	3 12 8.4	1 22 2.9	23 16 13.9	21 18 16.6	19 16 23.4
3	5 10 5.8	3 8 12.5	1 18 7.0	23 12 18.0	21 14 20.7	19 12 27.4
4	5 6 9.8	3 4 16.6	1 14 11.1	23 8 22.1	21 10 24.8	19 8 31.5
5	5 2 13.9	3 0 20.7	1 10 15.2	23 4 26.2	21 6 28.9	19 4 35.6
6	4 58 18.0	2 56 24.7	1 6 19.3	23 0 30.2	21 2 33.0	19 0 39.7
7	4 54 22.1	2 52 28.8	1 2 23.4	22 56 34.3	20 58 37.1	18 56 43.8
8	4 50 26.2	2 48 32.9	0 58 27.5	22 52 38.4	20 54 41.1	18 52 47.9
9	4 46 30.3	2 44 37.0	0 54 31.6	22 48 42.5	20 50 45.2	18 48 52.0
10	4 42 34.4	2 40 41.1	0 50 35.7	22 44 46.6	20 46 49.3	18 44 56.1
11	4 38 38.5	2 36 45.2	0 46 39.8	22 40 50.7	20 42 53.4	18 41 0.2
12	4 34 42.5	2 32 49.3	0 42 43.8	22 36 54.8	20 38 57.5	18 37 4.2
13	4 30 46.6	2 28 53.4	0 38 47.9	22 32 58.9	20 35 1.6	18 33 8.3
14	4 26 50.7	2 24 57.5	0 34 52.0	22 29 3.0	20 31 5.7	18 29 12.4
15	4 22 54.8	2 21 1.6	0 30 56.1	22 25 7.1	20 27 9.8	18 25 16.5
16	4 18 58.9	2 17 5.7	0 27 0.2	22 21 11.2	20 23 13.9	18 21 20.6
17	4 15 3.0	2 13 9.7	0 23 4.3	22 17 15.2	20 19 17.9	18 17 24.7
18	4 11 7.1	2 9 13.8	0 19 8.4	22 13 19.3	20 15 22.0	18 13 28.8
19	4 7 11.2	2 5 17.9	0 15 12.5	22 9 23.4	20 11 26.1	18 9 32.8
20	4 3 15.2	2 1 22.0	0 11 16.6	22 5 27.5	20 7 30.2	18 5 36.9
21	3 59 19.3	1 57 26.1	0 7 20.7	22 1 31.6	20 3 34.3	18 1 41.0
22	3 55 23.4	1 53 30.2	{ 0 3 24.8 / 23 59 28.9 }	21 57 35.7	19 59 38.4	17 57 45.1
23	3 51 27.5	1 49 34.3	23 55 33.0	21 53 39.8	19 55 42.5	17 53 49.2
24	3 47 31.6	1 45 38.4	23 51 37.0	21 49 43.9	19 51 46.6	17 49 53.3
25	3 43 35.7	1 41 42.5	23 47 41.1	21 45 48.0	19 47 50.7	17 45 57.4
26	3 39 39.8	1 37 46.6	23 43 45.2	21 41 52.1	19 43 54.7	17 42 1.5
27	3 35 43.9	1 33 50.7	23 39 49.3	21 37 56.2	19 39 58.8	17 38 5.5
28	3 31 47.9	1 29 54.7	23 35 53.4	21 34 0.2	19 36 2.9	17 34 9.6
29	3 27 52.0	1 25 58.8	23 31 57.5	21 30 4.3	19 32 7.0	17 30 13.7
30	3 23 56.1	1 22 2.9	23 28 1.6	21 26 8.4	19 28 11.1	17 26 17.8
31	3 20 0.2	1 18 7.0	23 24 5.7	21 22 12.5	19 24 15.2	17 22 21.9

CORRECTION FOR LONGITUDE.

Longitude.	0m	6m	12m	18m	24m	30m	36m	42m	48m	54m	60m	Longitude.
h	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	h
0	0 0.0	0 1.0	0 2.0	0 2.9	0 3.9	0 4.9	0 5.9	0 6.9	0 7.9	0 8.8	0 9.8	0
1	0 9.8	0 10.8	0 11.8	0 12.8	0 13.8	0 14.7	0 15.7	0 16.7	0 17.7	0 18.7	0 19.7	1
2	0 19.7	0 20.6	0 21.6	0 22.6	0 23.6	0 24.6	0 25.6	0 26.5	0 27.5	0 28.5	0 29.5	2
3	0 29.5	0 30.5	0 31.5	0 32.5	0 33.4	0 34.4	0 35.4	0 36.4	0 37.4	0 38.3	0 39.3	3
4	0 39.3	0 40.3	0 41.3	0 42.3	0 43.2	0 44.2	0 45.2	0 46.2	0 47.2	0 48.2	0 49.1	4
5	0 49.1	0 50.1	0 51.1	0 52.1	0 53.1	0 54.1	0 55.0	0 56.0	0 57.0	0 58.0	0 59.0	5
6	0 59.0	1 0.0	1 0.9	1 1.9	1 2.9	1 3.9	1 4.9	1 5.9	1 6.8	1 7.8	1 8.8	6
7	1 8.8	1 9.8	1 10.8	1 11.8	1 12.7	1 13.7	1 14.7	1 15.7	1 16.7	1 17.7	1 18.6	7
8	1 18.6	1 19.6	1 20.6	1 21.6	1 22.6	1 23.6	1 24.5	1 25.5	1 26.5	1 27.5	1 28.5	8
9	1 28.5	1 29.5	1 30.4	1 31.4	1 32.4	1 33.4	1 34.4	1 35.3	1 36.3	1 37.3	1 38.3	9
10	1 38.3	1 39.3	1 40.3	1 41.2	1 42.2	1 43.2	1 44.2	1 45.2	1 46.2	1 47.1	1 48.1	10
11	1 48.1	1 49.1	1 50.1	1 51.1	1 52.1	1 53.0	1 54.0	1 55.0	1 56.0	1 57.0	1 58.0	11

NOTE.—To be subtracted from M. T. S. N. at Greenwich to obtain M. T. S. N. at any longitude west of Greenwich. The correction must be added when the longitude is east of Greenwich.

Day of Month.	Mean Time of Sidereal Noon at Greenwich.					
	July.	August.	September.	October.	November.	December.
	h m s	h m s	h m s	h m s	h m s	h m s
1	17 22 21.9	15 20 28.6	13 18 35.4	11 20 38.2	9 18 45.0	7 20 47.7
2	17 18 26.0	15 16 32.7	13 14 39.5	11 16 42.3	9 14 49.1	7 16 51.8
3	17 14 30.1	15 12 36.8	13 10 43.6	11 12 46.4	9 10 53.2	7 12 55.9
4	17 10 34.2	15 8 40.9	13 6 47.7	11 8 50.5	9 6 57.3	7 9 0.0
5	17 6 38.2	15 4 45.0	13 2 51.8	11 4 54.6	9 3 1.4	7 5 4.0
6	17 2 42.3	15 0 49.1	12 58 55.9	11 0 58.7	8 59 5.5	7 1 8.1
7	16 58 46.4	14 56 53.2	12 55 0.0	10 57 2.8	8 55 9.6	6 57 12.2
8	16 54 50.5	14 52 57.3	12 51 4.1	10 53 6.8	8 51 13.7	6 53 16.3
9	16 50 54.6	14 49 1.3	12 47 8.2	10 49 10.9	8 47 17.7	6 49 20.4
10	16 46 58.7	14 45 5.4	12 43 12.3	10 45 15.0	8 43 21.8	6 45 24.5
11	16 43 2.8	14 41 9.5	12 39 16.4	10 41 19.1	8 39 25.9	6 41 28.6
12	16 39 6.9	14 37 13.6	12 35 20.4	10 37 23.2	8 35 30.0	6 37 32.7
13	16 35 10.9	14 33 17.7	12 31 24.5	10 33 27.3	8 31 34.1	6 33 36.7
14	16 31 15.0	14 29 21.8	12 27 28.6	10 29 31.4	8 27 38.2	6 29 40.8
15	16 27 19.1	14 25 25.9	12 23 32.7	10 25 35.5	8 23 42.3	6 25 44.9
16	16 23 23.2	14 21 30.0	12 19 36.8	10 21 39.6	8 19 46.4	6 21 49.0
17	16 19 27.3	14 17 34.1	12 15 40.9	10 17 43.7	8 15 50.5	6 17 53.1
18	16 15 31.4	14 13 38.2	12 11 45.0	10 13 47.8	8 11 54.5	6 13 57.2
19	16 11 35.5	14 9 42.2	12 7 49.1	10 9 51.9	8 7 58.6	6 10 1.3
20	16 7 39.6	14 5 46.3	12 3 53.2	10 5 55.9	8 4 2.7	6 6 5.4
21	16 3 43.7	14 1 50.4	11 59 57.3	10 2 0.0	8 0 6.8	6 2 9.4
22	15 59 47.7	13 57 54.5	11 56 1.4	9 58 4.1	7 56 10.9	5 58 13.5
23	15 55 51.8	13 53 58.6	11 52 5.5	9 54 8.2	7 52 15.0	5 54 17.6
24	15 51 55.9	13 50 2.7	11 48 9.6	9 50 12.3	7 48 19.1	5 50 21.7
25	15 48 0.0	13 46 6.8	11 44 13.6	9 46 16.4	7 44 23.2	5 46 25.8
26	15 44 4.1	13 42 10.9	11 40 17.7	9 42 20.5	7 40 27.3	5 42 29.9
27	15 40 8.2	13 38 15.0	11 36 21.8	9 38 24.6	7 36 31.3	5 38 34.0
28	15 36 12.3	13 34 19.1	11 32 25.9	9 34 28.7	7 32 35.4	5 34 38.0
29	15 32 16.4	13 30 23.2	11 28 30.0	9 30 32.8	7 28 39.5	5 30 42.1
30	15 28 20.5	13 26 27.2	11 24 34.1	9 26 36.8	7 24 43.6	5 26 46.2
31	15 24 24.5	13 22 31.3	11 20 38.2	9 22 40.9	7 20 47.7	5 22 50.3

CORRECTION FOR LONGITUDE.

Longitude.	0m	6m	12m	18m	24m	30m	36m	42m	48m	54m	60m	Longitude.
h	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	h
12	1 58.0	1 58.9	1 59.9	2 0.9	2 1.9	2 2.9	2 3.9	2 4.8	2 5.8	2 6.8	2 7.8	12
13	2 7.8	2 8.8	2 9.7	2 10.7	2 11.7	2 12.7	2 13.7	2 14.7	2 15.6	2 16.6	2 17.6	13
14	2 17.6	2 18.6	2 19.6	2 20.6	2 21.5	2 22.5	2 23.5	2 24.5	2 25.5	2 26.5	2 27.4	14
15	2 27.4	2 28.4	2 29.4	2 30.4	2 31.4	2 32.4	2 33.3	2 34.3	2 35.3	2 36.3	2 37.3	15
16	2 37.3	2 38.3	2 39.2	2 40.2	2 41.2	2 42.2	2 43.2	2 44.2	2 45.1	2 46.1	2 47.1	16
17	2 47.1	2 48.1	2 49.1	2 50.1	2 51.0	2 52.0	2 53.0	2 54.0	2 55.0	2 55.9	2 56.9	17
18	2 56.9	2 57.9	2 58.9	2 59.9	3 0.9	3 1.8	3 2.8	3 3.8	3 4.8	3 5.8	3 6.8	18
19	3 6.8	3 7.7	3 8.7	3 9.7	3 10.7	3 11.7	3 12.7	3 13.6	3 14.6	3 15.6	3 16.6	19
20	3 16.6	3 17.6	3 18.6	3 19.5	3 20.5	3 21.5	3 22.5	3 23.5	3 24.5	3 25.4	3 26.4	20
21	3 26.4	3 27.4	3 28.4	3 29.4	3 30.4	3 31.3	3 32.3	3 33.3	3 34.3	3 35.3	3 36.2	21
22	3 36.2	3 37.2	3 38.2	3 39.2	3 40.2	3 41.2	3 42.1	3 43.1	3 44.1	3 45.1	3 46.1	22
23	3 46.1	3 47.1	3 48.0	3 49.0	3 50.0	3 51.0	3 52.0	3 53.0	3 53.9	3 54.9	3 55.9	23

NOTE.—To be subtracted from M. T. S. N. at Greenwich to obtain M. T. S. N. at any longitude west of Greenwich. The correction must be added when the longitude is east of Greenwich.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Thursday 1.		Monday 5.		Friday 9.		Tuesday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−23 3.4	−3 27.2	−22 40.9	−5 18.7	−22 11.2	−7 3.1	−21 34.6	−8 38.
2	23 3.0	3 29.6	22 40.4	5 21.0	22 10.5	7 5.2	21 33.8	8 40.
4	23 2.6	3 32.0	22 39.8	5 23.2	22 9.8	7 7.2	21 32.9	8 42.
6	23 2.2	3 34.4	22 39.3	5 25.5	22 9.1	7 9.3	21 32.1	8 44.
8	23 1.8	3 36.7	22 38.7	5 27.7	22 8.4	7 11.4	21 31.2	8 46.
10	23 1.4	3 39.1	22 38.2	5 30.0	22 7.7	7 13.4	21 30.4	8 48.
12	23 1.0	3 41.5	22 37.6	5 32.2	22 7.0	7 15.5	21 29.5	8 50.
14	23 0.6	3 43.9	22 37.0	5 34.4	22 6.3	7 17.6	21 28.7	8 51.
16	23 0.1	3 46.2	22 36.4	5 36.6	22 5.6	7 19.6	21 27.8	8 53.
18	22 59.7	3 48.6	22 35.9	5 38.9	22 4.9	7 21.7	21 27.0	8 55.
20	22 59.3	3 51.0	22 35.3	5 41.1	22 4.1	7 23.7	21 26.1	8 57.
22	22 58.8	3 53.3	22 34.7	5 43.3	22 3.4	7 25.8	21 25.3	8 59.
H. D.	0.2	1.2	0.3	1.1	0.4	1.0	0.4	0.
	Friday 2.		Tuesday 6.		Saturday 10.		Wednesday 14.	
0	−22 58.4	−3 55.7	−22 34.1	−5 45.5	−22 2.7	−7 27.8	−21 24.4	−9 1.
2	22 58.0	3 58.0	22 33.5	5 47.7	22 2.0	7 29.8	21 23.5	9 3.
4	22 57.5	4 0.4	22 32.9	5 49.9	22 1.2	7 31.9	21 22.6	9 4.
6	22 57.1	4 2.7	22 32.4	5 52.2	22 0.5	7 33.9	21 21.8	9 6.
8	22 56.7	4 5.0	22 31.8	5 54.4	21 59.8	7 35.9	21 20.9	9 8.
10	22 56.2	4 7.4	22 31.2	5 56.6	21 59.0	7 38.0	21 20.0	9 10.
12	22 55.8	4 9.7	22 30.6	5 58.8	21 58.3	7 40.0	21 19.1	9 12.
14	22 55.3	4 12.0	22 30.0	6 1.0	21 57.5	7 42.0	21 18.2	9 13.
16	22 54.9	4 14.4	22 29.4	6 3.2	21 56.8	7 44.0	21 17.3	9 15.
18	22 54.4	4 16.7	22 28.8	6 5.4	21 56.0	7 46.1	21 16.5	9 17.
20	22 53.9	4 19.0	22 28.1	6 7.5	21 55.2	7 48.1	21 15.6	9 19.
22	22 53.5	4 21.4	22 27.5	6 9.7	21 54.5	7 50.1	21 14.7	9 21.
H. D.	0.2	1.2	0.3	1.1	0.4	1.0	0.4	0.
	Saturday 3.		Wednesday 7.		Sunday 11.		Thursday 15.	
0	−22 53.0	−4 23.7	−22 26.9	−6 11.9	−21 53.7	−7 52.1	−21 13.8	−9 22.
2	22 52.5	4 26.0	22 26.3	6 14.1	21 52.9	7 54.1	21 12.9	9 24.
4	22 52.1	4 28.3	22 25.7	6 16.2	21 52.2	7 56.1	21 12.0	9 26.
6	22 51.6	4 30.7	22 25.1	6 18.4	21 51.4	7 58.1	21 11.1	9 28.
8	22 51.1	4 33.0	22 24.4	6 20.6	21 50.6	8 0.0	21 10.1	9 30.
10	22 50.7	4 35.3	22 23.8	6 22.7	21 49.9	8 2.0	21 9.2	9 31.
12	22 50.2	4 37.6	22 23.2	6 24.9	21 49.1	8 4.0	21 8.3	9 33.
14	22 49.7	4 39.9	22 22.6	6 27.0	21 48.3	8 6.0	21 7.4	9 35.
16	22 49.2	4 42.2	22 21.9	6 29.2	21 47.5	8 7.9	21 6.4	9 37.
18	22 48.7	4 44.5	22 21.3	6 31.3	21 46.8	8 9.9	21 5.5	9 38.
20	22 48.2	4 46.8	22 20.6	6 33.4	21 46.0	8 11.8	21 4.6	9 40.
22	22 47.7	4 49.1	22 20.0	6 35.6	21 45.2	8 13.8	21 3.6	9 42.
H. D.	0.2	1.2	0.3	1.1	0.4	1.0	0.5	0.
	Sunday 4.		Thursday 8.		Monday 12.		Friday 16.	
0	−22 47.2	−4 51.4	−22 19.3	−6 37.7	−21 44.4	−8 15.7	−21 2.7	−9 44.
2	22 46.7	4 53.7	22 18.6	6 39.8	21 43.6	8 17.6	21 1.8	9 45.
4	22 46.2	4 56.0	22 18.0	6 42.0	21 42.8	8 19.6	21 0.8	9 47.
6	22 45.7	4 58.3	22 17.3	6 44.1	21 42.0	8 21.5	20 59.9	9 49.
8	22 45.1	5 0.5	22 16.6	6 46.2	21 41.1	8 23.4	20 59.0	9 51.
10	22 44.6	5 2.8	22 16.0	6 48.4	21 40.3	8 25.4	20 58.0	9 52.
12	22 44.1	5 5.1	22 15.3	6 50.5	21 39.5	8 27.3	20 57.1	9 54.
14	22 43.6	5 7.4	22 14.6	6 52.6	21 38.7	8 29.2	20 56.1	9 56.
16	22 43.0	5 9.6	22 13.9	6 54.7	21 37.9	8 31.1	20 55.2	9 57.
18	22 42.5	5 11.9	22 13.3	6 56.8	21 37.1	8 33.0	20 54.2	9 59.
20	22 42.0	5 14.2	22 12.6	6 58.9	21 36.2	8 34.9	20 53.2	10 1.
22	−22 41.4	−5 16.4	−22 11.9	−7 1.0	−21 35.4	−8 36.8	−20 52.3	−10 2.
H. D.	0.3	1.1	0.3	1.1	0.4	1.0	0.5	0.

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Saturday 17.		Wednesday 21.		Sunday 25.		Thursday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−20 51.3	−10 4.5	−20 1.7	−11 19.5	−19 6.0	−12 22.5	−18 4.8	−13 12.9
2	20 50.3	10 6.2	20 0.6	11 20.9	19 4.8	12 23.7	18 3.5	13 13.8
4	20 49.3	10 7.8	19 59.5	11 22.3	19 3.5	12 24.8	18 2.1	13 14.7
6	20 48.3	10 9.5	19 58.4	11 23.8	19 2.3	12 26.0	18 0.8	13 15.6
8	20 47.4	10 11.2	19 57.2	11 25.2	19 1.1	12 27.2	17 59.4	13 16.5
10	20 46.4	10 12.8	19 56.1	11 26.6	18 59.8	12 28.3	17 58.1	13 17.4
12	20 45.4	10 14.5	19 55.0	11 28.0	18 58.6	12 29.5	17 56.7	13 18.3
14	20 44.4	10 16.1	19 53.9	11 29.4	18 57.4	12 30.7	17 55.4	13 19.2
16	20 43.4	10 17.8	19 52.8	11 30.8	18 56.1	12 31.8	17 54.0	13 20.0
18	20 42.4	10 19.4	19 51.7	11 32.2	18 54.9	12 33.0	17 52.7	13 20.9
20	20 41.5	10 21.0	19 50.5	11 33.6	18 53.7	12 34.1	17 51.3	13 21.8
22	20 40.5	10 22.7	19 49.4	11 35.0	18 52.4	12 35.3	17 50.0	13 22.6
H. D.	0.5	0.8	0.6	0.7	0.6	0.6	0.7	0.4
	Sunday 18.		Thursday 22.		Monday 26.		Friday 30.	
0	−20 39.5	−10 24.3	−19 48.3	−11 36.4	−18 51.2	−12 36.4	−17 48.6	−13 23.5
2	20 38.5	10 25.9	19 47.2	11 37.8	18 50.0	12 37.5	17 47.2	13 24.3
4	20 37.5	10 27.5	19 46.0	11 39.1	18 48.7	12 38.6	17 45.9	13 25.1
6	20 36.5	10 29.2	19 44.9	11 40.5	18 47.5	12 39.7	17 44.5	13 26.0
8	20 35.4	10 30.8	19 43.8	11 41.9	18 46.2	12 40.8	17 43.1	13 26.8
10	20 34.4	10 32.4	19 42.6	11 43.2	18 45.0	12 41.9	17 41.8	13 27.6
12	20 33.4	10 34.0	19 41.5	11 44.6	18 43.7	12 43.0	17 40.4	13 28.4
14	20 32.4	10 35.6	19 40.4	11 45.9	18 42.4	12 44.1	17 39.0	13 29.2
16	20 31.4	10 37.1	19 39.2	11 47.2	18 41.2	12 45.1	17 37.7	13 30.0
18	20 30.4	10 38.7	19 38.1	11 48.6	18 39.9	12 46.2	17 36.3	13 30.8
20	20 29.3	10 40.3	19 36.9	11 49.9	18 38.6	12 47.3	17 34.9	13 31.6
22	20 28.3	10 41.8	19 35.8	11 51.2	18 37.4	12 48.3	17 33.6	13 32.4
H. D.	0.5	0.8	0.6	0.7	0.6	0.5	0.7	0.4
	Monday 19.		Friday 23.		Tuesday 27.		Saturday 31.	
0	−20 27.3	−10 43.4	−19 34.6	−11 52.5	−18 36.1	−12 49.4	−17 32.2	−13 33.2
2	20 26.3	10 45.0	19 33.4	11 53.8	18 34.8	12 50.4	17 30.8	13 34.0
4	20 25.2	10 46.5	19 32.3	11 55.1	18 33.5	12 51.5	17 29.4	13 34.7
6	20 24.2	10 48.1	19 31.1	11 56.4	18 32.3	12 52.5	17 28.0	13 35.5
8	20 23.1	10 49.6	19 29.9	11 57.7	18 31.0	12 53.5	17 26.6	13 36.2
10	20 22.1	10 51.2	19 28.8	11 59.0	18 29.7	12 54.6	17 25.2	13 37.0
12	20 21.0	10 52.7	19 27.6	12 0.3	18 28.4	12 55.6	17 23.8	13 37.7
14	20 19.9	10 54.2	19 26.4	12 1.6	18 27.1	12 56.6	17 22.4	13 38.4
16	20 18.9	10 55.7	19 25.2	12 2.8	18 25.8	12 57.6	17 21.0	13 39.2
18	20 17.8	10 57.3	19 24.1	12 4.1	18 24.5	12 58.6	17 19.6	13 39.9
20	20 16.7	10 58.8	19 22.9	12 5.4	18 23.2	12 59.6	17 18.2	13 40.6
22	20 15.7	11 0.3	19 21.7	12 6.6	18 21.9	13 0.6	−17 16.8	−13 41.4
H. D.	0.5	0.8	0.6	0.6	0.6	0.5	0.7	0.4
	Tuesday 20.		Saturday 24.		Wednesday 28.			
0	−20 14.6	−11 1.8	−19 20.5	−12 7.9	−18 20.6	−13 1.6		
2	20 13.5	11 3.3	19 19.3	12 9.1	18 19.3	13 2.6		
4	20 12.5	11 4.8	19 18.1	12 10.4	18 18.0	13 3.5		
6	20 11.4	11 6.3	19 16.9	12 11.6	18 16.7	13 4.5		
8	20 10.3	11 7.7	19 15.7	12 12.8	18 15.3	13 5.5		
10	20 9.3	11 9.2	19 14.5	12 14.1	18 14.0	13 6.4		
12	20 8.2	11 10.7	19 13.3	12 15.3	18 12.7	13 7.4		
14	20 7.1	11 12.2	19 12.1	12 16.5	18 11.4	13 8.3		
16	20 6.0	11 13.6	19 10.9	12 17.7	18 10.1	13 9.2		
18	20 5.0	11 15.1	19 9.7	12 18.9	18 8.8	13 10.2		
20	20 3.9	11 16.6	19 8.4	12 20.1	18 7.4	13 11.1		
22	−20 2.8	−11 18.0	−19 7.2	−12 21.3	−18 6.1	−13 12.0		
H. D.	0.5	0.7	0.6	0.6	0.7	0.5		

SEMIDIAMETER.

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Jan. 1	16.30
11	16.30
21	16.28
31	16.26

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Sunday 1.		Thursday 5.		Monday 9.		Friday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−17 15.4	−13 42.1	−16 5.4	−14 9.2	−14 50.9	−14 23.1	−13 32.5	−14 24.3
2	17 14.0	13 42.8	16 3.9	14 9.6	14 49.3	14 23.2	13 30.8	14 24.2
4	17 12.6	13 43.5	16 2.4	14 10.0	14 47.7	14 23.4	13 29.2	14 24.1
6	17 11.2	13 44.2	16 0.9	14 10.5	14 46.1	14 23.5	13 27.5	14 24.0
8	17 9.7	13 44.8	15 59.3	14 10.9	14 44.5	14 23.6	13 25.8	14 23.8
10	17 8.3	13 45.5	15 57.8	14 11.3	14 42.9	14 23.8	13 24.2	14 23.7
12	17 6.9	13 46.2	15 56.3	14 11.7	14 41.3	14 23.9	13 22.5	14 23.6
14	17 5.5	13 46.9	15 54.8	14 12.1	14 39.7	14 24.0	13 20.8	14 23.5
16	17 4.0	13 47.5	15 53.2	14 12.4	14 38.1	14 24.1	13 19.1	14 23.3
18	17 2.6	13 48.2	15 51.7	14 12.8	14 36.5	14 24.3	13 17.5	14 23.2
20	17 1.2	13 48.8	15 50.2	14 13.2	14 34.9	14 24.4	13 15.8	14 23.0
22	16 59.7	13 49.5	15 48.6	14 13.5	14 33.3	14 24.5	13 14.1	14 22.9
H. D.	0.7	0.3	0.8	0.2	0.8	0.1	0.8	0.1
	Monday 2.		Friday 6.		Tuesday 10.		Saturday 14.	
0	−16 58.3	−13 50.1	−15 47.1	−14 13.9	−14 31.7	−14 24.6	−13 12.4	−14 22.7
2	16 56.9	13 50.7	15 45.6	14 14.2	14 30.1	14 24.7	13 10.7	14 22.5
4	16 55.4	13 51.3	15 44.0	14 14.6	14 28.5	14 24.7	13 9.0	14 22.3
6	16 54.0	13 52.0	15 42.5	14 14.9	14 26.9	14 24.8	13 7.3	14 22.2
8	16 52.6	13 52.6	15 41.0	14 15.2	14 25.2	14 24.9	13 5.6	14 22.0
10	16 51.1	13 53.2	15 39.4	14 15.6	14 23.6	14 24.9	13 3.9	14 21.8
12	16 49.7	13 53.8	15 37.9	14 15.9	14 22.0	14 25.0	13 2.2	14 21.6
14	16 48.2	13 54.4	15 36.4	14 16.2	14 20.4	14 25.0	13 0.5	14 21.4
16	16 46.8	13 55.0	15 34.8	14 16.5	14 18.7	14 25.1	12 58.8	14 21.2
18	16 45.3	13 55.6	15 33.3	14 16.9	14 17.1	14 25.1	12 57.1	14 21.0
20	16 43.8	13 56.1	15 31.8	14 17.2	14 15.5	14 25.1	12 55.4	14 20.8
22	16 42.4	13 56.7	15 30.2	14 17.5	14 13.8	14 25.2	12 53.7	14 20.6
H. D.	0.7	0.3	0.8	0.2	0.8	0.0	0.8	0.1
	Tuesday 3.		Saturday 7.		Wednesday 11.		Sunday 15.	
0	−16 40.9	−13 57.3	−15 28.7	−14 17.8	−14 12.2	−14 25.2	−12 52.0	−14 20.4
2	16 39.5	13 57.9	15 27.1	14 18.1	14 10.6	14 25.2	12 50.3	14 20.2
4	16 38.0	13 58.4	15 25.6	14 18.3	14 8.9	14 25.2	12 48.6	14 19.9
6	16 36.6	13 59.0	15 24.0	14 18.6	14 7.3	14 25.3	12 46.9	14 19.7
8	16 35.1	13 59.5	15 22.4	14 18.9	14 5.7	14 25.3	12 45.1	14 19.4
10	16 33.7	14 0.1	15 20.9	14 19.1	14 4.0	14 25.3	12 43.4	14 19.2
12	16 32.2	14 0.6	15 19.3	14 19.4	14 2.4	14 25.3	12 41.7	14 18.9
14	16 30.7	14 1.1	15 17.7	14 19.6	14 0.8	14 25.3	12 40.0	14 18.6
16	16 29.2	14 1.6	15 16.2	14 19.9	13 59.1	14 25.2	12 38.3	14 18.4
18	16 27.8	14 2.2	15 14.6	14 20.1	13 57.5	14 25.2	12 36.6	14 18.1
20	16 26.3	14 2.7	15 13.0	14 20.3	13 55.8	14 25.2	12 34.8	14 17.8
22	16 24.8	14 3.2	15 11.5	14 20.6	13 54.2	14 25.1	12 33.1	14 17.6
H. D.	0.7	0.3	0.8	0.1	0.8	0.0	0.9	0.1
	Wednesday 4.		Sunday 8.		Thursday 12.		Monday 16.	
0	−16 23.3	−14 3.7	−15 9.9	−14 20.8	−13 52.5	−14 25.1	−12 31.4	−14 17.3
2	16 21.8	14 4.2	15 8.3	14 21.0	13 50.8	14 25.1	12 29.7	14 17.0
4	16 20.3	14 4.6	15 6.8	14 21.2	13 49.2	14 25.0	12 27.9	14 16.7
6	16 18.9	14 5.1	15 5.2	14 21.5	13 47.5	14 25.0	12 26.2	14 16.5
8	16 17.4	14 5.6	15 3.6	14 21.7	13 45.8	14 24.9	12 24.5	14 16.2
10	16 15.9	14 6.0	15 2.1	14 21.9	13 44.2	14 24.9	12 22.7	14 15.9
12	16 14.4	14 6.5	15 0.5	14 22.1	13 42.5	14 24.8	12 21.0	14 15.6
14	16 12.9	14 7.0	14 58.9	14 22.3	13 40.8	14 24.7	12 19.3	14 15.3
16	16 11.4	14 7.4	14 57.3	14 22.4	13 39.2	14 24.6	12 17.5	14 14.9
18	16 9.9	14 7.9	14 55.7	14 22.6	13 37.5	14 24.6	12 15.8	14 14.6
20	16 8.4	14 8.3	14 54.1	14 22.8	13 35.8	14 24.5	12 14.1	14 14.3
22	−16 6.9	−14 8.8	−14 52.5	−14 22.9	−13 34.2	−14 24.4	−12 12.3	−14 13.9
H. D.	0.7	0.2	0.8	0.1	0.8	0.0	0.9	0.2

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Tuesday 17.		Saturday 21.		Wednesday 25.	
h	° ′	m s	° ′	m s	° ′	m s
0	−12 10.6	−14 13.6	−10 45.5	−13 51.9	−9 17.7	−13 19.9
2	12 8.9	14 13.3	10 43.7	13 51.3	9 15.9	13 19.1
4	12 7.1	14 12.9	10 41.9	13 50.7	9 14.0	13 18.3
6	12 5.4	14 12.6	10 40.1	13 50.2	9 12.2	13 17.6
8	12 3.6	14 12.2	10 38.3	13 49.6	9 10.3	13 16.8
10	12 1.9	14 11.9	10 36.5	13 49.0	9 8.5	13 16.0
12	12 0.1	14 11.5	10 34.7	13 48.4	9 6.6	13 15.2
14	11 58.4	14 11.1	10 32.9	13 47.8	9 4.7	13 14.4
16	11 56.6	14 10.7	10 31.1	13 47.2	9 2.9	13 13.6
18	11 54.9	14 10.3	10 29.3	13 46.6	9 1.0	13 12.8
20	11 53.1	14 10.0	10 27.4	13 46.0	8 59.1	13 12.0
22	11 51.4	14 9.6	10 25.6	13 45.4	8 57.3	13 11.2
I. D.	0.9	0.2	0.9	0.3	0.9	0.4
	Wednesday 18.		Sunday 22.		Thursday 26.	
0	−11 49.6	−14 9.2	−10 23.8	−13 44.8	−8 55.4	−13 10.4
2	11 47.8	14 8.8	10 22.0	13 44.2	8 53.5	13 9.6
4	11 46.1	14 8.4	10 20.1	13 43.6	8 51.7	13 8.7
6	11 44.3	14 8.0	10 18.3	13 43.0	8 49.8	13 7.9
8	11 42.5	14 7.5	10 16.5	13 42.3	8 47.9	13 7.1
10	11 40.8	14 7.1	10 14.6	13 41.7	8 46.1	13 6.2
12	11 39.0	14 6.7	10 12.8	13 41.1	8 44.2	13 5.4
14	11 37.2	14 6.3	10 11.0	13 40.4	8 42.3	13 4.6
16	11 35.5	14 5.8	10 9.2	13 39.8	8 40.4	13 3.7
18	11 33.7	14 5.4	10 7.4	13 39.1	8 38.6	13 2.9
20	11 31.9	14 5.0	10 5.5	13 38.4	8 36.7	13 2.0
22	11 30.2	14 4.5	10 3.7	13 37.8	8 34.8	13 1.2
I. D.	0.9	0.2	0.9	0.3	0.9	0.4
	Thursday 19.		Monday 23.		Friday 27.	
0	−11 28.4	−14 4.1	−10 1.9	−13 37.1	−8 32.9	−13 0.3
2	11 26.6	14 3.6	10 0.1	13 36.4	8 31.0	12 59.4
4	11 24.8	14 3.2	9 58.2	13 35.8	8 29.2	12 58.6
6	11 23.1	14 2.7	9 56.4	13 35.1	8 27.3	12 57.7
8	11 21.3	14 2.2	9 54.6	13 34.4	8 25.4	12 56.8
10	11 19.5	14 1.8	9 52.7	13 33.8	8 23.6	12 56.0
12	11 17.7	14 1.3	9 50.9	13 33.1	8 21.7	12 55.1
14	11 15.9	14 0.8	9 49.1	13 32.4	8 19.8	12 54.2
16	11 14.1	14 0.3	9 47.2	13 31.7	8 17.9	12 53.3
18	11 12.4	13 59.8	9 45.4	13 31.0	8 16.1	12 52.4
20	11 10.6	13 59.3	9 43.6	13 30.2	8 14.2	12 51.5
22	11 8.8	13 58.8	9 41.7	13 29.5	8 12.3	12 50.6
H. D.	0.9	0.2	0.9	0.3	0.9	0.4
	Friday 20.		Tuesday 24.		Saturday 28.	
0	−11 7.0	−13 58.3	− 9 39.9	−13 28.8	−8 10.4	−12 49.7
2	11 5.2	13 57.8	9 38.1	13 28.1	8 8.5	12 48.8
4	11 3.4	13 57.3	9 36.2	13 27.3	8 6.6	12 47.8
6	11 1.7	13 56.8	9 34.4	13 26.6	8 4.7	12 46.9
8	10 59.9	13 56.2	9 32.5	13 25.9	8 2.8	12 46.0
10	10 58.1	13 55.7	9 30.7	13 25.1	8 0.9	12 45.0
12	10 56.3	13 55.2	9 28.8	13 24.4	7 59.0	12 44.1
14	10 54.5	13 54.7	9 27.0	13 23.7	7 57.1	12 43.2
16	10 52.7	13 54.1	9 25.1	13 22.9	7 55.2	12 42.2
18	10 50.9	13 53.6	9 23.3	13 22.2	7 53.4	12 41.3
20	10 49.1	13 53.0	9 21.4	13 21.4	7 51.5	12 40.4
22	−10 47.3	−13 52.5	− 9 19.6	−13 20.7	−7 49.6	−12 39.4
H. D.	0.9	0.3	0.9	0.4	0.9	0.5

SEMIDIAMETER.

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Feb. 1	16.26
11	16.23
21	16.20
Mar. 3	16.16

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Sunday 1.		Thursday 5.		Monday 9.		Friday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−7 47.7	−12 38.5	−6 15.9	−11 48.6	−4 42.8	−10 51.3	−3 8.7	−9 48.0
2	7 45.8	12 37.5	6 14.0	11 47.5	4 40.9	10 50.0	3 6.7	9 46.6
4	7 43.9	12 36.6	6 12.0	11 46.3	4 38.9	10 48.8	3 4.8	9 45.2
6	7 42.0	12 35.6	6 10.1	11 45.2	4 37.0	10 47.5	3 2.8	9 43.9
8	7 40.1	12 34.6	6 8.2	11 44.1	4 35.0	10 46.2	3 0.8	9 42.5
10	7 38.2	12 33.7	6 6.2	11 42.9	4 33.1	10 45.0	2 58.9	9 41.1
12	7 36.3	12 32.7	6 4.3	11 41.8	4 31.1	10 43.7	2 56.9	9 39.7
14	7 34.4	12 31.7	6 2.4	11 40.7	4 29.1	10 42.4	2 54.9	9 38.3
16	7 32.5	12 30.7	6 0.4	11 39.5	4 27.2	10 41.1	2 53.0	9 36.9
18	7 30.6	12 29.8	5 58.5	11 38.4	4 25.2	10 39.9	2 51.0	9 35.6
20	7 28.7	12 28.8	5 56.6	11 37.2	4 23.2	10 38.6	2 49.0	9 34.2
22	7 26.8	12 27.8	5 54.6	11 36.1	4 21.3	10 37.3	2 47.1	9 32.8
H. D.	0.9	0.5	1.0	0.6	1.0	0.6	1.0	0.7
	Monday 2.		Friday 6.		Tuesday 10.		Saturday 14.	
0	−7 24.9	−12 26.8	−5 52.7	−11 34.9	−4 19.3	−10 36.0	−2 45.1	−9 31.4
2	7 23.0	12 25.8	5 50.8	11 33.7	4 17.4	10 34.7	2 43.1	9 30.0
4	7 21.1	12 24.8	5 48.8	11 32.6	4 15.4	10 33.4	2 41.2	9 28.6
6	7 19.2	12 23.7	5 46.9	11 31.4	4 13.5	10 32.1	2 39.2	9 27.2
8	7 17.3	12 22.7	5 45.0	11 30.2	4 11.5	10 30.8	2 37.2	9 25.8
10	7 15.4	12 21.7	5 43.0	11 29.1	4 9.6	10 29.5	2 35.3	9 24.4
12	7 13.5	12 20.7	5 41.1	11 27.9	4 7.6	10 28.2	2 33.3	9 23.0
14	7 11.6	12 19.7	5 39.2	11 26.7	4 5.6	10 26.9	2 31.3	9 21.6
16	7 9.7	12 18.6	5 37.2	11 25.5	4 3.7	10 25.6	2 29.3	9 20.2
18	7 7.8	12 17.6	5 35.3	11 24.4	4 1.7	10 24.3	2 27.4	9 18.8
20	7 5.8	12 16.6	5 33.4	11 23.2	3 59.7	10 22.9	2 25.4	9 17.3
22	7 3.9	12 15.5	5 31.4	11 22.0	3 57.8	10 21.6	2 23.4	9 15.9
H. D.	1.0	0.5	1.0	0.6	1.0	0.7	1.0	0.7
	Tuesday 3.		Saturday 7.		Wednesday 11.		Sunday 15.	
0	−7 2.0	−12 14.5	−5 29.5	−11 20.8	−3 55.8	−10 20.3	−2 21.4	−9 14.5
2	7 0.1	12 13.5	5 27.6	11 19.6	3 53.9	10 19.0	2 19.4	9 13.1
4	6 58.2	12 12.4	5 25.6	11 18.4	3 51.9	10 17.6	2 17.5	9 11.7
6	6 56.3	12 11.4	5 23.7	11 17.2	3 50.0	10 16.3	2 15.5	9 10.3
8	6 54.3	12 10.3	5 21.7	11 15.9	3 48.0	10 15.0	2 13.5	9 8.8
10	6 52.4	12 9.3	5 19.8	11 14.7	3 46.1	10 13.6	2 11.6	9 7.4
12	6 50.5	12 8.2	5 17.8	11 13.5	3 44.1	10 12.3	2 9.6	9 6.0
14	6 48.6	12 7.1	5 15.9	11 12.3	3 42.1	10 11.0	2 7.6	9 4.6
16	6 46.7	12 6.1	5 13.9	11 11.1	3 40.2	10 9.6	2 5.7	9 3.2
18	6 44.8	12 5.0	5 12.0	11 9.9	3 38.2	10 8.3	2 3.7	9 1.8
20	6 42.8	12 3.9	5 10.1	11 8.6	3 36.2	10 7.0	2 1.7	9 0.3
22	6 40.9	12 2.9	5 8.1	11 7.4	3 34.3	10 5.6	1 59.8	8 58.9
H. D.	1.0	0.5	1.0	0.6	1.0	0.7	1.0	0.7
	Wednesday 4.		Sunday 8.		Thursday 12.		Monday 16.	
0	−6 39.0	−12 1.8	−5 6.2	−11 6.2	−3 32.3	−10 4.3	−1 57.8	−8 57.5
2	6 37.1	12 0.7	5 4.3	11 5.0	3 30.3	10 3.0	1 55.8	8 56.1
4	6 35.2	11 59.6	5 2.3	11 3.7	3 28.4	10 1.6	1 53.8	8 54.6
6	6 33.3	11 58.5	5 0.4	11 2.5	3 26.4	10 0.3	1 51.9	8 53.2
8	6 31.3	11 57.4	4 58.4	11 1.3	3 24.4	9 58.9	1 49.9	8 51.7
10	6 29.4	11 56.3	4 56.5	11 0.0	3 22.5	9 57.6	1 47.9	8 50.3
12	6 27.5	11 55.2	4 54.5	10 58.8	3 20.5	9 56.2	1 45.9	8 48.8
14	6 25.6	11 54.1	4 52.6	10 57.6	3 18.5	9 54.8	1 43.9	8 47.4
16	6 23.6	11 53.0	4 50.6	10 56.3	3 16.6	9 53.5	1 42.0	8 45.9
18	6 21.7	11 51.9	4 48.7	10 55.1	3 14.6	9 52.1	1 40.0	8 44.5
20	6 19.8	11 50.8	4 46.7	10 53.8	3 12.6	9 50.7	1 38.0	8 43.1
22	−6 17.8	−11 49.7	−4 44.8	−10 52.6	−3 10.7	− 9 49.4	−1 36.1	−8 41.6
H. D.	1.0	0.6	1.0	0.6	1.0	0.7	1.0	0.7

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Tuesday 17.		Saturday 21.		Wednesday 25.		Sunday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−1 34.1	−8 40.2	+0 0.8	−7 29.3	+1 35.5	−6 16.7	+3 9.6	−5 3.5
2	1 32.1	8 38.7	0 2.8	7 27.8	1 37.5	6 15.2	3 11.5	5 2.0
4	1 30.1	8 37.3	0 4.8	7 26.3	1 39.4	6 13.7	3 13.5	5 0.5
6	1 28.2	8 35.8	0 6.8	7 24.8	1 41.4	6 12.2	3 15.4	4 58.9
8	1 26.2	8 34.3	0 8.7	7 23.3	1 43.4	6 10.6	3 17.3	4 57.4
10	1 24.2	8 32.9	0 10.7	7 21.8	1 45.3	6 9.1	3 19.3	4 55.9
12	1 22.2	8 31.4	0 12.7	7 20.3	1 47.3	6 7.6	3 21.2	4 54.4
14	1 20.2	8 30.0	0 14.7	7 18.8	1 49.3	6 6.1	3 23.2	4 52.9
16	1 18.2	8 28.5	0 16.6	7 17.3	1 51.2	6 4.6	3 25.1	4 51.4
18	1 16.3	8 27.1	0 18.6	7 15.8	1 53.2	6 3.1	3 27.1	4 49.8
20	1 14.3	8 25.6	0 20.6	7 14.3	1 55.2	6 1.5	3 29.0	4 48.3
22	1 12.3	8 24.2	0 22.5	7 12.8	1 57.1	6 0.0	3 31.0	4 46.8
H. D.	1.0	0.7	1.0	0.8	1.0	0.8	1.0	0.8
	Wednesday 18.		Sunday 22.		Thursday 26.		Monday 30.	
0	−1 10.3	−8 22.7	+0 24.5	−7 11.3	+1 59.1	−5 58.5	+3 32.9	−4 45.3
2	1 8.3	8 21.2	0 26.5	7 9.8	2 1.1	5 57.0	3 34.9	4 43.8
4	1 6.4	8 19.8	0 28.4	7 8.3	2 3.0	5 55.4	3 36.8	4 42.3
6	1 4.4	8 18.3	0 30.4	7 6.8	2 5.0	5 53.9	3 38.8	4 40.7
8	1 2.4	8 16.8	0 32.4	7 5.3	2 6.9	5 52.4	3 40.7	4 39.2
10	1 0.5	8 15.4	0 34.3	7 3.8	2 8.9	5 50.8	3 42.7	4 37.7
12	0 58.5	8 13 9	0 36 3	7 2 3	2 10.8	5 49.3	3 44.6	4 36.2
14	0 56.5	8 12.4	0 38.3	7 0.8	2 12.8	5 47.8	3 46.5	4 34.7
16	0 54.5	8 10.9	0 40.3	6 59.3	2 14.7	5 46.2	3 48.5	4 33.2
18	0 52.6	8 9.5	0 42.3	6 57.8	2 16.7	5 44.7	3 50.4	4 31.6
20	0 50.6	8 8.0	0 44.2	6 56.2	2 18.7	5 43.2	3 52.3	4 30.1
22	0 48.6	8 6.5	0 46.2	6 54.7	2 20.6	5 41.6	3 54.3	4 28.6
H. D.	1.0	0.7	1.0	0.8	1.0	0.8	1.0	0.8
	Thursday 19.		Monday 23.		Friday 27.		Tuesday 31.	
0	−0 46.6	−8 5.0	+0 48.2	−6 53.2	+2 22.6	−5 40.1	+3 56.2	−4 27.1
2	0 44.6	8 3.5	0 50.2	6 51.7	2 24.6	5 38.6	3 58.2	4 25.6
4	0 42.7	8 2.1	0 52.1	6 50.2	2 26.5	5 37.1	4 0.1	4 24.1
6	0 40.7	8 0.6	0 54.1	6 48.7	2 28.5	5 35.5	4 2.1	4 22.5
8	0 38.7	7 59.1	0 56.1	6 47.1	2 30.5	5 34.0	4 4.0	4 21.0
10	0 36.8	7 57.7	0 58.0	6 45.6	2 32.4	5 32.5	4 6.0	4 19.5
12	0 34.8	7 56.2	1 0.0	6 44.1	2 34.4	5 31.0	4 7.9	4 18.0
14	0 32.8	7 54.7	1 2.0	6 42.6	2 36.4	5 29.5	4 9.8	4 16.5
16	0 30.8	7 53.2	1 3.9	6 41.1	2 38.3	5 27.9	4 11.8	4 15.0
18	0 28.8	7 51.7	1 5.9	6 39.6	2 40.3	5 26.4	4 13.7	4 13.4
20	0 26.9	7 50.2	1 7.9	6 38.0	2 42.2	5 24.9	4 15.6	4 11.9
22	0 24.9	7 48.7	1 9.8	6 36.5	2 44.2	5 23.3	+4 17.6	−4 10.4
H. D.	1.0	0.7	1.0	0.8	1.0	0.8	1.0	0.8
	Friday 20.		Tuesday 24.		Saturday 28.			
0	−0 22.9	−7 47.2	+1 11.8	−6 35.0	+2 46.1	−5 21.8		
2	0 20.9	7 45.7	1 13.8	6 33.5	2 48.1	5 20.3		
4	0 19.0	7 44.2	1 15.8	6 32.0	2 50.0	5 18.8		
6	0 17.0	7 42.8	1 17.8	6 30.5	2 52.0	5 17.2		
8	0 15.0	7 41.3	1 19.7	6 28.9	2 53.9	5 15.7		
10	0 13.1	7 39.8	1 21.7	6 27.4	2 55.9	5 14.2		
12	0 11.1	7 38.3	1 23.7	6 25.9	2 57.8	5 12.7		
14	0 9.1	7 36.8	1 25.7	6 24.4	2 59.8	5 11.2		
16	0 7.1	7 35.3	1 27.6	6 22.8	3 1.7	5 9.6		
18	0 5.1	7 33.8	1 29.6	6 21.3	3 3.7	5 8.1		
20	0 3.2	7 32.3	1 31.6	6 19.8	3 5.7	5 6.6		
22	−0 1.2	−7 30.8	+1 33.5	−6 18.2	+3 7.6	−5 5.0		
H. D.	1.0	0.7	1.0	0.8	1.0	0.8		

SEMIDIAMETER.

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Mar. 1	16.17
11	16.13
21	16.08
31	16.04

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Wednesday 1.		Sunday 5.		Thursday 9.		Monday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+4 19.5	−4 8.9	+5 51.5	−2 57.3	+7 22.0	−1 48.2	+ 8 50.4	−0 42.9
2	4 21.4	4 7.4	5 53.4	2 55.8	7 23.9	1 46.8	8 52.2	0 41.6
4	4 23.4	4 5.9	5 55.3	2 54.4	7 25.7	1 45.4	8 54.0	0 40.3
6	4 25.3	4 4.4	5 57.3	2 52.9	7 27.6	1 44.0	8 55.9	0 39.0
8	4 27.2	4 2.9	5 59.2	2 51.4	7 29.4	1 42.6	8 57.7	0 37.7
10	4 29.2	4 1.4	6 1.1	2 50.0	7 31.3	1 41.2	8 59.5	0 36.4
12	4 31.1	3 59.9	6 3.0	2 48.5	7 33.1	1 39.8	9 1.3	0 35.1
14	4 33.0	3 58.4	6 4.9	2 47.0	7 35.0	1 38.4	9 3.1	0 33.8
16	4 34.9	3 56.9	6 6.8	2 45.6	7 36.8	1 37.0	9 4.9	0 32.5
18	4 36.9	3 55.3	6 8.7	2 44.1	7 38.7	1 35.7	9 6.8	0 31.2
20	4 38.8	3 53.8	6 10.5	2 42.7	7 40.6	1 34.3	9 8.6	0 29.9
22	4 40.7	3 52.3	6 12.4	2 41.2	7 42.4	1 32.9	9 10.4	0 28.6
H. D.	1.0	0.8	0.9	0.7	0.9	0.7	0.9	0.7
	Thursday 2.		Monday 6.		Friday 10.		Tuesday 14.	
0	+4 42.6	−3 50.8	+6 14.3	−2 39.8	+7 44.3	−1 31.5	+ 9 12.2	−0 27.3
2	4 44.5	3 49.3	6 16.2	2 38.3	7 46.2	1 30.1	9 14.0	0 26.0
4	4 46.5	3 47.8	6 18.1	2 36.9	7 48.0	1 28.7	9 15.8	0 24.8
6	4 48.4	3 46.3	6 20.0	2 35.4	7 49.9	1 27.4	9 17.6	0 23.5
8	4 50.3	3 44.8	6 21.9	2 33.9	7 51.7	1 26.0	9 19.4	0 22.2
10	4 52.3	3 43.3	6 23.8	2 32.5	7 53.6	1 24.6	9 21.2	0 21.0
12	4 54.2	3 41.8	6 25.7	2 31.0	7 55.4	1 23.2	9 23.0	0 19.7
14	4 56.1	3 40.3	6 27.6	2 29.6	7 57.3	1.21.8	9 24.8	0 18.4
16	4 58.0	3 38.8	6 29.5	2 28.1	7 59.1	1 20.5	9 26.6	0 17.2
18	5 0.0	3 37.3	6 31.4	2 26.7	8 1.0	1 19.1	9 28.4	0 15.9
20	5 1.9	3 35.9	6 33.2	2 25.3	8 2.8	1 17.7	9 30.2	0 14.6
22	5 3.8	3 34.4	6 35.1	2 23.8	8 4.7	1 16.4	9 32.0	0 13.4
H. D.	1.0	0.7	0.9	0.7	0.9	0.7	0.9	0.7
	Friday 3.		Tuesday 7.		Saturday 11.		Wednesday 15.	
0	+5 5.7	−3 32.9	+6 37.0	−2 22.4	+8 6.5	−1 15.0	+ 9 33.8	−0 12.1
2	5 7.6	3 31.4	6 38.9	2 20.9	8 8.3	1 13.6	9 35.6	0 10.9
4	5 9.5	3 29.9	6 40.8	2 19.5	8 10.2	1 12.3	9 37.4	0 9.7
6	5 11.5	3 28.4	6 42.7	2 18.0	8 12.0	1 10.9	9 39.2	0 8.4
8	5 13.4	3 26.9	6 44.5	2 16.6	8 13.8	1 9.6	9 40.9	0 7.2
10	5 15.3	3 25.4	6 46.4	2 15.1	8 15.7	1 8.2	9 42.7	0 5.9
12	5 17.2	3 23.9	6 48.3	2 13.7	8 17.5	1 6.9	9 44.5	0 4.7
14	5 19.1	3 22.4	6 50.2	2 12.3	8 19.3	1 5.5	9 46.3	0 3.4
16	5 21.0	3 20.9	6 52.0	2 10.9	8 21.2	1 4.2	9 48.1	0 2.2
18	5 23.0	3 19.4	6 53.9	2 9.4	8 23.0	1 2.8	9 49.9	−0 1.0
20	5 24.9	3 18.0	6 55.8	2 8.0	8 24.8	1 1.5	9 51.6	+0 0.3
22	5 26.8	3 16.5	6 57.6	2 6.6	8 26.7	1 0.1	9 53.4	0 1.5
H. D.	1.0	0.7	0.9	0.7	0.9	0.7	0.9	0.7
	Saturday 4.		Wednesday 8.		Sunday 12.		Thursday 16.	
0	+5 28.7	−3 15.0	+6 59.5	−2 5.2	+8 28.5	−0 58.8	+ 9 55.2	+0 2.8
2	5 30.6	3 13.5	7 1.4	2 3.8	8 30.3	0 57.5	9 57.0	0 3.9
4	5 32.5	3 12.1	7 3.3	2 2.4	8 32.2	0 56.1	9 58.8	0 5.1
6	5 34.4	3 10.6	7 5.2	2 0.9	8 34.0	0 54.8	10 0.6	0 6.2
8	5 36.3	3 9.1	7 7.0	1 59.5	8 35.8	0 53.5	10 2.3	0 7.4
10	5 38.2	3 7.7	7 8.9	1 58.1	8 37.7	0 52.1	10 4.1	0 8.7
12	5 40.1	3 6.2	7 10.8	1 56.7	8 39.5	0 50.8	10 5.9	0 10.0
14	5 42.0	3 4.7	7 12.7	1 55.3	8 41.3	0 49.5	10 7.7	0 11.3
16	5 43.9	3 3.2	7 14.5	1 53.9	8 43.1	0 48.2	10 9.4	0 12.6
18	5 45.8	3 1.7	7 16.4	1 52.4	8 45.0	0 46.8	10 11.2	0 13.9
20	5 47.7	3 0.3	7 18.3	1 51.0	8 46.8	0 45.5	10 13.0	0 14.9
22	+5 49.6	−2 58.8	+7 20.1	−1 49.6	+8 48.6	−0 44.2	+10 14.7	+0 16.0
H. D.	1.0	0.7	0.9	0.7	0.9	0.7	0.9	0.8

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Friday 17.		Tuesday 21.		Saturday 25.		Wednesday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+10 16.5	+0 17.2	+11 39.9	+1 11.1	+13 0.3	+1 57.9	+14 17.3	+2 37.1
2	10 18.3	0 18.4	11 41.6	1 12.1	13 1.9	1 58.8	14 18.9	2 37.8
4	10 20.0	0 19.6	11 43.3	1 13.2	13 3.6	1 59.7	14 20.4	2 38.6
6	10 21.8	0 20.8	11 45.1	1 14.2	13 5.2	2 0.6	14 22.0	2 39.3
8	10 23.6	0 21.9	11 46.8	1 15.2	13 6.8	2 1.5	14 23.5	2 40.0
10	10 25.3	0 23.1	11 48.5	1 16.3	13 8.5	2 2.4	14 25.1	2 40.8
12	10 27.1	0 24.3	11 50.2	1 17.3	13 10.1	2 3.3	14 26.6	2 41.5
14	10 28.9	0 25.5	11 51.9	1 18.3	13 11.7	2 4.2	14 28.2	2 42.2
16	10 30.6	0 26.6	11 53.6	1 19.4	13 13.4	2 5.0	14 29.7	2 42.9
18	10 32.4	0 27.8	11 55.3	1 20.4	13 15.0	2 5.9	14 31.3	2 43.6
20	10 34.1	0 29.0	11 56.9	1 21.4	13 16.6	2 6.8	14 32.8	2 44.3
22	10 35.9	0 30.1	11 58.6	1 22.5	13 18.3	2 7.6	14 34.4	2 45.0
H. D.	0.9	0.6	0.9	0.5	0.8	0.4	0.8	0.4
	Saturday 18.		Wednesday 22.		Sunday 26.		Thursday 30.	
0	+10 37.6	+0 31.3	+12 0.3	+1 23.5	+13 19.9	+2 8.5	+14 35.9	+2 45.7
2	10 39.4	0 32.5	12 2.0	1 24.5	13 21.5	2 9.3	14 37.5	2 46.4
4	10 41.1	0 33.6	12 3.7	1 25.5	13 23.1	2 10.2	14 39.0	2 47.0
6	10 42.9	0 34.8	12 5.4	1 26.5	13 24.8	2 11.0	14 40.6	2 47.7
8	10 44.6	0 35.9	12 7.0	1 27.5	13 26.4	2 11.8	14 42.1	2 48.4
10	10 46.4	0 37.1	12 8.7	1 28.5	13 28.0	2 12.7	14 43.7	2 49.0
12	10 48.1	0 38.2	12 10.4	1 29.5	13 29.6	2 13.5	14 45.2	2 49.7
14	10 49.9	0 39.3	12 12.1	1 30.5	13 31.2	2 14.3	14 46.7	2 50.4
16	10 51.6	0 40.5	12 13.8	1 31.5	13 32.8	2 15.2	14 48.2	2 51.0
18	10 53.4	0 41.6	12 15.5	1 32.5	13 34.4	2 16.0	14 49.8	2 51.7
20	10 55.1	0 42.7	12 17.1	1 33.4	13 36.0	2 16.8	14 51.3	2 52.4
22	10 56.9	0 43.9	12 18.8	1 34.4	13 37.6	2 17.7	+14 52.8	+2 53.0
H. D.	0.9	0.6	0.8	0.5	0.8	0.4	0.8	0.3
	Sunday 19.		Thursday 23.		Monday 27.			
0	+10 58.6	+0 45.0	+12 20.5	+1 35.4	+13 39.2	+2 18.5		
2	11 0.3	0 46.1	12 22.2	1 36.4	13 40.8	2 19.3		
4	11 2.1	0 47.2	12 23.8	1 37.3	13 42.4	2 20.1		
6	11 3.8	0 48.4	12 25.5	1 38.3	13 44.0	2 20.9		
8	11 5.5	0 49.5	12 27.2	1 39.3	13 45.6	2 21.7		
10	11 7.3	0 50.6	12 28.8	1 40.2	13 47.2	2 22.5		
12	11 9.0	0 51.7	12 30.5	1 41.2	13 48.8	2 23.3		
14	11 10.7	0 52.8	12 32.2	1 42.2	13 50.4	2 24.1		
16	11 12.4	0 53.9	12 33.8	1 43.1	13 52.0	2 24.9		
18	11 14.2	0 54.9	12 35.5	1 44.1	13 53.6	2 25.7		
20	11 15.9	0 56.0	12 37.2	1 45.0	13 55.2	2 26.5		
22	11 17.6	0 57.1	12 38.8	1 46.0	13 56.8	2 27.3		
H. D.	0.9	0.5	0.8	0.5	0.8	0.4		
	Monday 20.		Friday 24.		Tuesday 28.			
0	+11 19.3	+0 58.2	+12 40.5	+1 46.9	+13 58.4	+2 28.1		
2	11 21.0	0 59.3	12 42.2	1 47.8	14 0.0	2 28.9		
4	11 22.8	1 0.4	12 43.8	1 48.8	14 1.5	2 29.6		
6	11 24.5	1 1.5	12 45.5	1 49.7	14 3.1	2 30.4		
8	11 26.2	1 2.5	12 47.1	1 50.6	14 4.7	2 31.2		
10	11 28.0	1 3.6	12 48.8	1 51.6	14 6.2	2 31.9		
12	11 29.7	1 4.7	12 50.4	1 52.5	14 7.8	2 32.7		
14	11 31.4	1 5.8	12 52.1	1 53.4	14 9.4	2 33.4		
16	11 33.1	1 6.8	12 53.7	1 54.3	14 11.0	2 34.2		
18	11 34.8	1 7.9	12 55.4	1 55.2	14 12.6	2 34.9		
20	11 36.5	1 9.0	12 57.0	1 56.1	14 14.1	2 35.6		
22	+11 38.2	+1 10.0	+12 58.7	+1 57.0	+14 15.7	+2 36.4		
H. D.	0.9	0.5	0.8	0.5	0.8	0.4		

SEMIDIAMETER.

	′
Apr. 1	16.03
11	15.99
21	15.94
May 1	15.90

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Friday 1.		Tuesday 5.		Saturday 9.		Wednesday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+14 54.3	+2 53.7	+16 5.5	+3 20.6	+17 12.3	+3 38.9	+18 14.6	+3 48.1
2	14 55.8	2 54.3	16 6.9	3 21.1	17 13.7	3 39.2	18 15.9	3 48.2
4	14 57.4	2 55.0	16 8.4	3 21.5	17 15.0	3 39.5	18 17.1	3 48.3
6	14 58.9	2 55.6	16 9.8	3 22.0	17 16.4	3 39.8	18 18.4	3 48.4
8	15 0.4	2 56.2	16 11.2	3 22.5	17 17.7	3 40.0	18 19.6	3 48.4
10	15 2.0	2 56.9	16 12.7	3 22.9	17 19.1	3 40.3	18 20.9	3 48.5
12	15 3.5	2 57.5	16 14.1	3 23.4	17 20.4	3 40.6	18 22.1	3 48.6
14	15 5.0	2 58.1	16 15.5	3 23.8	17 21.7	3 40.9	18 23.3	3 48.7
16	15 6.5	2 58.7	16 16.9	3 24.3	17 23.1	3 41.1	18 24.5	3 48.7
18	15 8.0	2 59.4	16 18.4	3 24.7	17 24.4	3 41.4	18 25.8	3 48.8
20	15 9.5	3 0.0	16 19.8	3 25.1	17 25.7	3 41.6	18 27.0	3 48.9
22	15 11.0	3 0.6	16 21.2	3 25.6	17 27.1	3 41.9	18 28.2	3 48.9
H. D.	0.8	0.3	0.7	0.2	0.7	0.1	0.6	0.0
	Saturday 2.		Wednesday 6.		Sunday 10.		Thursday 14.	
0	+15 12.5	+3 1.2	+16 22.6	+3 26.0	+17 28.4	+3 42.1	+18 29.4	+3 49.0
2	15 14.0	3 1.8	16 24.0	3 26.4	17 29.7	3 42.3	18 30.6	3 49.0
4	15 15.5	3 2.4	16 25.4	3 26.8	17 31.0	3 42.6	18 31.8	3 49.1
6	15 17.0	3 3.0	16 26.9	3 27.3	17 32.3	3 42.8	18 33.1	3 49.1
8	15 18.5	3 3.6	16 28.3	3 27.7	17 33.6	3 43.0	18 34.3	3 49.1
10	15 20.0	3 4.2	16 29.7	3 28.1	17 34.9	3 43.3	18 35.5	3 49.2
12	15 21.5	3 4.8	16 31.1	3 28.5	17 36.2	3 43.5	18 36.7	3 49.2
14	15 23.0	3 5.4	16 32.5	3 28.9	17 37.5	3 43.7	18 37.9	3 49.2
16	15 24.5	3 5.9	16 33.9	3 29.3	17 38.8	3 43.9	18 39.1	3 49.2
18	15 26.0	3 6.5	16 35.3	3 29.7	17 40.2	3 44.1	18 40.4	3 49.2
20	15 27.4	3 7.1	16 36.7	3 30.1	17 41.5	3 44.3	18 41.6	3 49.2
22	15 28.9	3 7.6	16 38.1	3 30.5	17 42.8	3 44.5	18 42.8	3 49.2
H. D.	0.7	0.3	0.7	0.2	0.7	0.1	0.6	0.0
	Sunday 3.		Thursday 7.		Monday 11.		Friday 15.	
0	+15 30.4	+3 8.2	+16 39.5	+3 30.9	+17 44.1	+3 44.7	+18 44.0	+3 49.2
2	15 31.9	3 8.8	16 40.9	3 31.3	17 45.4	3 44.9	18 45.2	3 49.2
4	15 33.4	3 9.3	16 42.3	3 31.6	17 46.7	3 45.1	18 46.4	3 49.2
6	15 34.9	3 9.9	16 43.7	3 32.0	17 48.0	3 45.3	18 47.6	3 49.2
8	15 36.3	3 10.4	16 45.0	3 32.4	17 49.2	3 45.4	18 48.7	3 49.1
10	15 37.8	3 11.0	16 46.4	3 32.7	17 50.5	3 45.6	18 49.9	3 49.1
12	15 39.3	3 11.5	16 47.8	3 33.1	17 51.8	3 45.8	18 51.1	3 49.1
14	15 40.8	3 12.0	16 49.2	3 33.5	17 53.1	3 46.0	18 52.3	3 49.1
16	15 42.2	3 12.6	16 50.5	3 33.8	17 54.4	3 46.1	18 53.5	3 49.0
18	15 43.7	3 13.1	16 51.9	3 34.2	17 55.7	3 46.3	18 54.7	3 49.0
20	15 45.2	3 13.6	16 53.3	3 34.5	17 56.9	3 46.4	18 55.8	3 49.0
22	15 46.6	3 14.2	16 54.6	3 34.9	17 58.2	3 46.6	18 57.0	3 48.9
H. D.	0.7	0.3	0.7	0.2	0.6	0.1	0.6	0.0
	Monday 4.		Friday 8.		Tuesday 12.		Saturday 16.	
0	+15 48.1	+3 14.7	+16 56.0	+3 35.2	+17 59.5	+3 46.7	+18 58.2	+3 48.9
2	15 49.6	3 15.2	16 57.4	3 35.5	18 0.8	3 46.8	18 59.4	3 48.8
4	15 51.0	3 15.7	16 58.7	3 35.8	18 2.0	3 47.0	19 0.5	3 48.8
6	15 52.5	3 16.2	17 0.1	3 36.2	18 3.3	3 47.1	19 1.7	3 48.7
8	15 53.9	3 16.7	17 1.5	3 36.5	18 4.6	3 47.2	19 2.8	3 48.6
10	15 55.4	3 17.2	17 2.8	3 36.8	18 5.8	3 47.4	19 4.0	3 48.6
12	15 56.8	3 17.7	17 4.2	3 37.1	18 7.1	3 47.5	19 5.1	3 48.5
14	15 58.3	3 18.2	17 5.6	3 37.4	18 8.4	3 47.6	19 6.3	3 48.4
16	15 59.7	3 18.7	17 6.9	3 37.7	18 9.6	3 47.7	19 7.4	3 48.3
18	16 1.2	3 19.2	17 8.3	3 38.0	18 10.9	3 47.8	19 8.6	3 48.2
20	16 2.6	3 19.6	17 9.6	3 38.3	18 12.1	3 47.9	19 9.7	3 48.1
22	+16 4.1	+3 20.1	+17 11.0	+3 38.6	+18 13.4	+3 48.0	+19 10.9	+3 48.0
H. D.	0.7	0.2	0.7	0.2	0.6	0.1	0.6	0.0

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Sunday 17.		Thursday 21.		Monday 25.		Friday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+19 12.0	+3 47.9	+20 4.3	+3 38.5	+20 51.0	+3 20.2	+21 32.0	+2 53.9
2	19 13.2	3 47.8	20 5.3	3 38.2	20 51.9	3 19.7	21 32.8	2 53.3
4	19 14.3	3 47.7	20 6.3	3 37.9	20 52.8	3 19.2	21 33.6	2 52.6
6	19 15.5	3 47.6	20 7.4	3 37.6	20 53.8	3 18.8	21 34.4	2 52.0
8	19 16.6	3 47.5	20 8.4	3 37.2	20 54.7	3 18.3	21 35.2	2 51.3
10	19 17.8	3 47.4	20 9.4	3 36.9	20 55.6	3 17.8	21 36.0	2 50.7
12	19 18.9	3 47.3	20 10.4	3 36.6	20 56.5	3 17.3	21 36.8	2 50.0
14	19 20.0	3 47.2	20 11.4	3 36.3	20 57.4	3 16.8	21 37.6	2 49.4
16	19 21.1	3 47.0	20 12.4	3 36.0	20 58.3	3 16.3	21 38.3	2 48.7
18	19 22.3	3 46.9	20 13.5	3 35.7	20 59.2	3 15.8	21 39.1	2 48.1
20	19 23.4	3 46.7	20 14.5	3 35.3	21 0.0	3 15.3	21 39.9	2 47.4
22	19 24.5	3 46.6	20 15.5	3 35.0	21 0.9	3 14.8	21 40.6	2 46.8
H. D.	0.6	0.1	0.5	0.2	0.5	0.2	0.4	0.3
	Monday 18.		Friday 22.		Tuesday 26.		Saturday 30.	
0	+19 25.6	+3 46.4	+20 16.5	+3 34.7	+21 1.8	+3 14.3	+21 41.4	+2 46.1
2	19 26.7	3 46.3	20 17.5	3 34.4	21 2.7	3 13.8	21 42.2	2 45.4
4	19 27.8	3 46.1	20 18.5	3 34.0	21 3.6	3 13.3	21 42.9	2 44.8
6	19 28.9	3 46.0	20 19.5	3 33.7	21 4.5	3 12.8	21 43.7	2 44.1
8	19 30.0	3 45.8	20 20.5	3 33.3	21 5.3	3 12.2	21 44.4	2 43.4
10	19 31.1	3 45.7	20 21.5	3 33.0	21 6.2	3 11.7	21 45.2	2 42.8
12	19 32.2	3 45.5	20 22.5	3 32.6	21 7.1	3 11.2	21 45.9	2 42.1
14	19 33.3	3 45.3	20 23.5	3 32.2	21 8.0	3 10.7	21 46.6	2 41.4
16	19 34.4	3 45.1	20 24.4	3 31.9	21 8.8	3 10.1	21 47.4	2 40.7
18	19 35.5	3 44.9	20 25.4	3 31.5	21 9.7	3 9.6	21 48.1	2 40.0
20	19 36.6	3 44.7	20 26.4	3 31.1	21 10.6	3 9.1	21 48.8	2 39.4
22	19 37.7	3 44.5	20 27.3	3 30.8	21 11.4	3 8.5	21 49.6	2 38.7
H. D.	0.6	0.1	0.5	0.2	0.4	0.3	0.4	0.3
	Tuesday 19.		Saturday 23.		Wednesday 27.		Sunday 31.	
0	+19 38.8	+3 44.3	+20 28.3	+3 30.4	+21 12.3	+3 8.0	+21 50.3	+2 38.0
2	19 39.9	3 44.1	20 29.3	3 30.0	21 13.2	3 7.4	21 51.0	2 37.3
4	19 41.0	3 43.9	20 30.3	3 29.6	21 14.0	3 6.9	21 51.8	2 36.6
6	19 42.1	3 43.7	20 31.3	3 29.2	21 14.9	3 6.3	21 52.5	2 35.9
8	19 43.1	3 43.5	20 32.2	3 28.8	21 15.7	3 5.7	21 53.2	2 35.1
10	19 44.2	3 43.3	20 33.2	3 28.4	21 16.6	3 5.2	21 54.0	2 34.4
12	19 45.3	3 43.1	20 34.2	3 28.0	21 17.4	3 4.6	21 54.7	2 33.7
14	19 46.4	3 42.9	20 35.2	3 27.6	21 18.2	3 4.0	21 55.4	2 33.0
16	19 47.4	3 42.6	20 36.1	3 27.2	21 19.0	3 3.4	21 56.1	2 32.3
18	19 48.5	3 42.4	20 37.1	3 26.8	21 19.9	3 2.9	21 56.8	2 31.6
20	19 49.6	3 42.2	20 38.0	3 26.3	21 20.7	3 2.3	21 57.5	2 30.8
22	19 50.6	3 41.9	20 39.0	3 25.9	21 21.5	3 1.7	+21 58.2	+2 30.1
H. D.	0.5	0.1	0.5	0.2	0.4	0.3	0.4	0.4
	Wednesday 20.		Sunday 24.		Thursday 28.			
0	+19 51.7	+3 41.7	+20 39.9	+3 25.5	+21 22.3	+3 1.1		
2	19 52.8	3 41.4	20 40.8	3 25.1	21 23.1	3 0.5		
4	19 53.8	3 41.2	20 41.8	3 24.6	21 23.9	2 59.9		
6	19 54.9	3 40.9	20 42.7	3 24.2	21 24.8	2 59.3		
8	19 55.9	3 40.6	20 43.6	3 23.8	21 25.6	2 58.7		
10	19 57.0	3 40.4	20 44.6	3 23.3	21 26.4	2 58.1		
12	19 58.0	3 40.1	20 45.5	3 22.9	21 27.2	2 57.5		
14	19 59.1	3 39.8	20 46.4	3 22.5	21 28.0	2 56.9		
16	20 0.1	3 39.6	20 47.3	3 22.0	21 28.8	2 56.3		
18	20 1.2	3 39.3	20 48.3	3 21.6	21 29.6	2 55.7		
20	20 2.2	3 39.0	20 49.2	3 21.1	21 30.4	2 55.1		
22	+20 3.3	+3 38.8	+20 50.1	+3 20.7	+21 31.2	+2 54.5		
H. D.	0.5	0.1	0.5	0.2	0.4	0.3		

SEMIDIAMETER.

	′
May 1	15.90
11	15.86
21	15.83
31	15.80

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Monday 1.		Friday 5.		Tuesday 9.		Saturday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+21 58.9	+2 29.4	+22 29.3	+1 51.5	+22 53.5	+1 8.3	+23 11.2	+0 20.8
2	21 59.6	2 28.7	22 29.9	1 50.7	22 53.9	1 7.4	23 11.5	0 19.8
4	22 0.3	2 27.9	22 30.4	1 49.8	22 54.3	1 6.4	23 11.8	0 18.8
6	22 1.0	2 27.2	22 31.0	1 49.0	22 54.8	1 5.5	23 12.1	0 17.8
8	22 1.6	2 26.5	22 31.6	1 48.1	22 55.2	1 4.5	23 12.4	0 16.7
10	22 2.3	2 25.7	22 32.1	1 47.3	22 55.6	1 3.6	23 12.7	0 15.7
12	22 3.0	2 25.0	22 32.7	1 46.4	22 56.0	1 2.6	23 13.0	0 14.7
14	22 3.7	2 24.3	22 33.3	1 45.5	22 56.4	1 1.6	23 13.3	0 13.7
16	22 4.4	2 23.5	22 33.8	1 44.6	22 56.8	1 0.7	23 13.5	0 12.6
18	22 5.1	2 22.8	22 34.4	1 43.8	22 57.3	0 59.7	23 13.8	0 11.6
20	22 5.7	2 22.0	22 34.9	1 42.9	22 57.7	0 58.7	23 14.1	0 10.5
22	22 6.4	2 21.3	22 35.5	1 42.0	22 58.1	0 57.8	23 14.3	0 9.5
H. D.	0.3	0.4	0.3	0.4	0.2	0.5	0.1	0.5
	Tuesday 2.		Saturday 6.		Wednesday 10.		Sunday 14.	
0	+22 7.1	+2 20.5	+22 36.0	+1 41.1	+22 58.5	+0 56.8	+23 14.6	+0 8.4
2	22 7.8	2 19.7	22 36.5	1 40.2	22 58.9	0 55.8	23 14.9	0 7.4
4	22 8.4	2 19.0	22 37.0	1 39.4	22 59.3	0 54.9	23 15.1	0 6.3
6	22 9.1	2 18.2	22 37.6	1 38.5	22 59.7	0 53.9	23 15.4	0 5.3
8	22 9.7	2 17.4	22 38.1	1 37.6	23 0.1	0 52.9	23 15.7	0 4.3
10	22 10.4	2 16.7	22 38.6	1 36.8	23 0.5	0 52.0	23 15.9	0 3.2
12	22 11.0	2 15.9	22 39.1	1 35.9	23 0.9	0 51.0	23 16.2	0 2.2
14	22 11.7	2 15.1	22 39.6	1 35.0	23 1.3	0 50.0	23 16.4	0 1.2
16	22 12.3	2 14.3	22 40.1	1 34.1	23 1.6	0 49.0	23 16.7	+0 0.1
18	22 13.0	2 13.6	22 40.7	1 33.2	23 2.0	0 48.0	23 16.9	−0 0.9
20	22 13.6	2 12.8	22 41.2	1 32.3	23 2.4	0 47.0	23 17.1	0 2.0
22	22 14.3	2 12.0	22 41.7	1 31.4	23 2.7	0 46.0	23 17.4	0 3.0
H. D.	0.3	0.4	0.3	0.4	0.2	0.5	0.1	0.5
	Wednesday 3.		Sunday 7.		Thursday 11.		Monday 15.	
0	+22 14.9	+2 11.2	+22 42.2	+1 30.5	+23 3.1	+0 45.0	+23 17.6	−0 4.1
2	22 15.5	2 10.4	22 42.7	1 29.6	23 3.5	0 44.0	23 17.8	0 5.2
4	22 16.1	2 9.6	22 43.2	1 28.7	23 3.8	0 43.0	23 18.1	0 6.2
6	22 16.8	2 8.8	22 43.7	1 27.8	23 4.2	0 42.1	23 18.3	0 7.3
8	22 17.4	2 8.0	22 44.2	1 26.9	23 4.6	0 41.1	23 18.5	0 8.4
10	22 18.0	2 7.2	22 44.7	1 26.0	23 4.9	0 40.1	23 18.8	0 9.4
12	22 18.6	2 6.4	22 45.2	1 25.1	23 5.3	0 39.1	23 19.0	0 10.5
14	22 19.2	2 5.6	22 45.7	1 24.2	23 5.7	0 38.1	23 19.2	0 11.6
16	22 19.8	2 4.8	22 46.1	1 23.2	23 6.0	0 37.1	23 19.4	0 12.6
18	22 20.5	2 4.0	22 46.6	1 22.3	23 6.4	0 36.1	23 19.6	0 13.7
20	22 21.1	2 3.1	22 47.1	1 21.4	23 6.7	0 35.1	23 19.8	0 14.8
22	22 21.7	2 2.3	22 47.5	1 20.4	23 7.1	0 34.1	23 20.0	0 15.8
H. D.	0.3	0.4	0.2	0.5	0.2	0.5	0.1	0.5
	Thursday 4.		Monday 8.		Friday 12.		Tuesday 16.	
0	+22 22.3	+2 1.5	+22 48.0	+1 19.5	+23 7.4	+0 33.1	+23 20.2	−0 16.9
2	22 22.9	2 0.7	22 48.5	1 18.6	23 7.7	0 32.1	23 20.4	0 18.0
4	22 23.5	1 59.8	22 48.9	1 17.7	23 8.0	0 31.1	23 20.6	0 19.0
6	22 24.1	1 59.0	22 49.4	1 16.8	23 8.4	0 30.1	23 20.8	0 20.1
8	22 24.7	1 58.2	22 49.9	1 15.8	23 8.7	0 29.0	23 21.0	0 21.2
10	22 25.3	1 57.3	22 50.3	1 14.9	23 9.0	0 28.0	23 21.2	0 22.2
12	22 25.9	1 56.5	22 50.8	1 14.0	23 9.3	0 27.0	23 21.4	0 23.3
14	22 26.5	1 55.7	22 51.3	1 13.1	23 9.6	0 26.0	23 21.6	0 24.4
16	22 27.0	1 54.8	22 51.7	1 12.1	23 9.9	0 24.9	23 21.7	0 25.4
18	22 27.6	1 54.0	22 52.2	1 11.2	23 10.3	0 23.9	23 21.9	0 26.5
20	22 28.2	1 53.2	22 52.6	1 10.2	23 10.6	0 22.9	23 22.1	0 27.6
22	+22 28.7	+1 52.3	+22 53.1	+1 9.3	+23 10.9	+0 21.8	+23 22.2	−0 28.6
H. D.	0.3	0.4	0.2	0.5	0.2	0.5	0.1	0.5

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Wednesday 17.		Sunday 21.		Thursday 25.		Monday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+23 22.4	−0 29.7	+23 27.0	−1 21.9	+23 25.0	−2 14.1	+23 16.4	−3 4.5
2	23 22.6	0 30.8	23 27.0	1 23.0	23 24.9	2 15.2	23 16.2	3 5.5
4	23 22.7	0 31.9	23 27.0	1 24.1	23 24.8	2 16.2	23 15.9	3 6.5
6	23 22.9	0 32.9	23 27.1	1 25.2	23 24.7	2 17.3	23 15.7	3 7.6
8	23 23.1	0 34.0	23 27.1	1 26.3	23 24.5	2 18.4	23 15.4	3 8.6
10	23 23.2	0 35.1	23 27.1	1 27.4	23 24.4	2 19.4	23 15.2	3 9.6
12	23 23.4	0 36.2	23 27.1	1 28.5	23 24.3	2 20.5	23 14.9	3 10.6
14	23 23.5	0 37.3	23 27.1	1 29.6	23 24.2	2 21.6	23 14.6	3 11.6
16	23 23.7	0 38.4	23 27.1	1 30.7	23 24.0	2 22.6	23 14.3	3 12.6
18	23 23.8	0 39.4	23 27.2	1 31.8	23 23.9	2 23.7	23 14.1	3 13.6
20	23 23.9	0 40.5	23 27.2	1 32.8	23 23.8	2 24.8	23 13.8	3 14.6
22	23 24.1	0 41.6	23 27.2	1 33.9	23 23.6	2 25.8	23 13.5	3 15.6
H. D.	0.1	0.5	0.0	0.5	0.1	0.5	0.1	0.5
	Thursday 18.		Monday 22.		Friday 26.		Tuesday 30.	
0	+23 24.2	−0 42.7	+23 27.2	−1 35.0	+23 23.5	−2 26.9	+23 13.2	−3 16.6
2	23 24.3	0 43.8	23 27.2	1 36.1	23 23.4	2 28.0	23 12.9	3 17.6
4	23 24.4	0 44.9	23 27.2	1 37.2	23 23.2	2 29.0	23 12.6	3 18.6
6	23 24.6	0 45.9	23 27.2	1 38.3	23 23.1	2 30.1	23 12.4	3 19.6
8	23 24.7	0 47.0	23 27.1	1 39.4	23 22.9	2 31.2	23 12.1	3 20.6
10	23 24.8	0 48.1	23 27.1	1 40.5	23 22.8	2 32.2	23 11.8	3 21.6
12	23 24.9	0 49.2	23 27.1	1 41.6	23 22.6	2 33.3	23 11.5	3 22.6
14	23 25.0	0 50.3	23 27.1	1 42.7	23 22.4	2 34.4	23 11.2	3 23.6
16	23 25.1	0 51.4	23 27.0	1 43.8	23 22.2	2 35.4	23 10.9	3 24.6
18	23 25.3	0 52.4	23 27.0	1 44.9	23 22.1	2 36.5	23 10.6	3 25.6
20	23 25.4	0 53.5	23 27.0	1 45.9	23 21.9	2 37.5	23 10.3	3 26.5
22	23 25.5	0 54.6	23 26.9	1 47.0	23 21.7	2 38.6	+23 10.0	−3 27.5
H. D.	0.1	0.5	0.0	0.5	0.1	0.5	0.1	0.5
	Friday 19.		Tuesday 23.		Saturday 27.			
0	+23 25.6	−0 55.7	+23 26.9	−1 48.1	+23 21.5	−2 39.6		
2	23 25.7	0 56.8	23 26.9	1 49.2	23 21.3	2 40.7		
4	23 25.8	0 57.9	23 26.8	1 50.3	23 21.1	2 41.7		
6	23 25.9	0 58.9	23 26.8	1 51.4	23 21.0	2 42.8		
8	23 25.9	1 0.0	23 26.7	1 52.4	23 20.8	2 43.8		
10	23 26.0	1 1.1	23 26.7	1 53.5	23 20.6	2 44.9		
12	23 26.1	1 2.2	23 26.6	1 54.6	23 20.4	2 45.9		
14	23 26.2	1 3.3	23 26.5	1 55.7	23 20.2	2 46.9		
16	23 26.2	1 4.4	23 26.5	1 56.8	23 20.0	2 48.0		
18	23 26.3	1 5.5	23 26.4	1 57.9	23 19.8	2 49.0		
20	23 26.4	1 6.6	23 26.3	1 58.9	23 19.6	2 50.0		
22	23 26.4	1 7.7	23 26.3	2 0.0	23 19.4	2 51.1		
H. D.	0.0	0.5	0.0	0.5	0.1	0.5		
	Saturday 20.		Wednesday 24.		Sunday 28.			
0	+23 26.5	−1 8.8	+23 26.2	−2 1.1	+23 19.2	−2 52.1		
2	23 26.6	1 9.9	23 26.1	2 2.2	23 19.0	2 53.1		
4	23 26.6	1 11.0	23 26.0	2 3.3	23 18.8	2 54.2		
6	23 26.7	1 12.0	23 25.9	2 4.4	23 18.6	2 55.2		
8	23 26.7	1 13.1	23 25.8	2 5.4	23 18.3	2 56.2		
10	23 26.8	1 14.2	23 25.7	2 6.5	23 18.1	2 57.3		
12	23 26.8	1 15.3	23 25.6	2 7.6	23 17.9	2 58.3		
14	23 26.8	1 16.4	23 25.5	2 8.7	23 17.7	2 59.3		
16	23 26.9	1 17.5	23 25.4	2 9.8	23 17.4	3 0.4		
18	23 26.9	1 18.6	23 25.3	2 10.9	23 17.2	3 1.4		
20	23 26.9	1 19.7	23 25.2	2 11.9	23 16.9	3 2.4		
22	+23 27.0	−1 20.8	+23 25.1	−2 13.0	+23 16.7	−3 3.5		
H. D.	0.0	0.5	0.0	0.5	0.1	0.5		

SEMIDIAMETER.

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June 1	15.80
11	15.78
21	15.77
July 1	15.76

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination	Equation of Time.	Sun's Declination.	Equation of Time.
	Wednesday 1.		Sunday 5.		Thursday 9.		Monday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+23 9.7	−3 28.5	+22 51.3	−4 13.2	+22 26.6	−4 52.5	+21 55.7	−5 25.7
2	23 9.4	3 29.5	22 50.9	4 14.1	22 26.0	4 53.3	21 55.0	5 26.3
4	23 9.0	3 30.4	22 50.4	4 14.9	22 25.4	4 54.0	21 54.3	5 26.9
6	23 8.7	3 31.4	22 50.0	4 15.8	22 24.9	4 54.8	21 53.6	5 27.5
8	23 8.4	3 32.4	22 49.5	4 16.7	22 24.3	4 55.5	21 52.8	5 28.1
10	23 8.0	3 33.3	22 49.1	4 17.5	22 23.7	4 56.3	21 52.1	5 28.7
12	23 7.7	3 34.3	22 48.6	4 18.4	22 23.1	4 57.0	21 51.4	5 29.3
14	23 7.4	3 35.3	22 48.1	4 19.3	22 22.5	4 57.7	21 50.7	5 29.9
16	23 7.0	3 36.2	22 47.6	4 20.1	22 21.9	4 58.5	21 50.0	5 30.5
18	23 6.7	3 37.2	22 47.2	4 21.0	22 21.3	4 59.2	21 49.3	5 31.1
20	23 6.4	3 38.2	22 46.7	4 21.8	22 20.7	4 59.9	21 48.5	5 31.7
22	23 6.0	3 39.1	22 46.2	4 22.7	22 20.1	5 0.7	21 47.8	5 32.3
H. D.	0.2	0.5	0.2	0.4	0.3	0.4	0.4	0.3
	Thursday 2.		Monday 6.		Friday 10.		Tuesday 14.	
0	+23 5.7	−3 40.1	+22 45.7	−4 23.5	+22 19.5	−5 1.4	+21 47.1	−5 32.9
2	23 5.3	3 41.1	22 45.2	4 24.4	22 18.9	5 2.1	21 46.4	5 33.5
4	23 5.0	3 42.0	22 44.7	4 25.2	22 18.3	5 2.8	21 45.6	5 34.0
6	23 4.6	3 43.0	22 44.3	4 26.1	22 17.7	5 3.6	21 44.9	5 34.6
8	23 4.2	3 43.9	22 43.8	4 26.9	22 17.0	5 4.3	21 44.1	5 35.2
10	23 3.9	3 44.9	22 43.3	4 27.8	22 16.4	5 5.0	21 43.4	5 35.7
12	23 3.5	3 45.8	22 42.8	4 28.6	22 15.8	5 5.7	21 42.6	5 36.3
14	23 3.1	3 46.7	22 42.3	4 29.4	22 15.2	5 6.4	21 41.8	5 36.9
16	23 2.8	3 47.7	22 41.8	4 30.3	22 14.5	5 7.1	21 41.1	5 37.4
18	23 2.4	3 48.6	22 41.3	4 31.1	22 13.9	5 7.8	21 40.3	5 38.0
20	23 2.0	3 49.5	22 40.7	4 31.9	22 13.2	5 8.5	21 39.5	5 38.5
22	23 1.7	3 50.5	22 40.2	4 32.8	22 12.6	5 9.2	21 38.8	5 39.1
H. D.	0.2	0.5	0.2	0.4	0.3	0.4	0.4	0.3
	Friday 3.		Tuesday 7.		Saturday 11.		Wednesday 15.	
0	+23 1.3	−3 51.4	+22 39.7	−4 33.6	+22 11.9	−5 9.9	+21 38.0	−5 39.6
2	23 0.9	3 52.3	22 39.2	4 34.4	22 11.3	5 10.6	21 37.2	5 40.1
4	23 0.5	3 53.3	22 38.7	4 35.2	22 10.6	5 11.3	21 36.5	5 40.7
6	23 0.2	3 54.2	22 38.2	4 36.1	22 10.0	5 12.0	21 35.7	5 41.2
8	22 59.8	3 55.1	22 37.6	4 36.9	22 9.3	5 12.6	21 34.9	5 41.7
10	22 59.4	3 56.1	22 37.1	4 37.7	22 8.7	5 13.3	21 34.2	5 42.3
12	22 59.0	3 57.0	22 36.6	4 38.5	22 8.0	5 14.0	21 33.4	5 42.8
14	22 58.6	3 57.9	22 36.1	4 39.3	22 7.3	5 14.7	21 32.6	5 43.3
16	22 58.2	3 58.8	22 35.5	4 40.1	22 6.7	5 15.3	21 31.8	5 43.8
18	22 57.8	3 59.7	22 35.0	4 40.9	22 6.0	5 16.0	21 31.0	5 44.4
20	22 57.3	4 0.6	22 34.5	4 41.6	22 5.3	5 16.7	21 30.2	5 44.9
22	22 56.9	4 1.5	22 33.9	4 42.4	22 4.7	5 17.3	21 29.4	5 45.4
H. D.	0.2	0.5	0.3	0.4	0.3	0.3	0.4	0.3
	Saturday 4.		Wednesday 8.		Sunday 12.		Thursday 16.	
0	+22 56.5	−4 2.4	+22 33.4	−4 43.2	+22 4.0	−5 18.0	+21 28.6	−5 45.9
2	22 56.1	4 3.3	22 32.8	4 44.0	22 3.3	5 18.7	21 27.8	5 46.4
4	22 55.7	4 4.2	22 32.3	4 44.8	22 2.6	5 19.3	21 27.0	5 46.9
6	22 55.3	4 5.1	22 31.7	4 45.6	22 2.0	5 20.0	21 26.2	5 47.4
8	22 54.8	4 6.0	22 31.1	4 46.3	22 1.3	5 20.6	21 25.4	5 47.8
10	22 54.4	4 6.9	22 30.6	4 47.1	22 0.6	5 21.3	21 24.6	5 48.3
12	22 54.0	4 7.8	22 30.0	4 47.9	21 59.9	5 21.9	21 23.8	5 48.8
14	22 53.6	4 8.7	22 29.4	4 48.7	21 59.2	5 22.5	21 23.0	5 49.3
16	22 53.1	4 9.6	22 28.9	4 49.4	21 58.5	5 23.2	21 22.1	5 49.8
18	22 52.7	4 10.5	22 28.3	4 50.2	21 57.8	5 23.8	21 21.3	5 50.3
20	22 52.2	4 11.4	22 27.7	4 51.0	21 57.1	5 24.4	21 20.5	5 50.7
22	+22 51.8	−4 12.3	+22 27.2	−4 51.7	+21 56.4	−5 25.1	+21 19.6	−5 51.2
H. D.	0.2	0.4	0.3	0.4	0.3	0.3	0.4	0.3

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Friday 17.		Tuesday 21.		Saturday 25.		Wednesday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+21 18.8	5 51.7	+20 36.1	−6 9.7	+19 47.8	−6 18.8	+18 54.3	−6 18.5
2	21 18.0	5 52.2	20 35.2	6 10.0	19 46.7	6 18.9	18 53.1	6 18.4
4	21 17.1	5 52.6	20 34.2	6 10.2	19 45.7	6 19.0	18 51.9	6 18.2
6	21 16.3	5 53.1	20 33.3	6 10.5	19 44.6	6 19.1	18 50.8	6 18.1
8	21 15.5	5 53.5	20 32.3	6 10.8	19 43.5	6 19.1	18 49.6	6 18.0
10	21 14.6	5 54.0	20 31.4	6 11.0	19 42.5	6 19.2	18 48.4	6 17.8
12	21 13.8	5 54.4	20 30.4	6 11.3	19 41.4	6 19.3	18 47.2	6 17.7
14	21 13.0	5 54.8	20 29.4	6 11.6	19 40.3	6 19.4	18 46.0	6 17.6
16	21 12.1	5 55.3	20 28.4	6 11.8	19 39.2	6 19.4	18 44.8	6 17.4
18	21 11.3	5 55.7	20 27.5	6 12.1	19 38.2	6 19.5	18 43.7	6 17.3
20	21 10.4	5 56.1	20 26.5	6 12.3	19 37.1	6 19.6	18 42.5	6 17.1
22	21 9.6	5 56.6	20 25.5	6 12.6	19 36.0	6 19.6	18 41.3	6 17.0
H. D.	0.4	0.2	0.5	0.1	0.5	0.0	0.6	0.1
	Saturday 18.		Wednesday 22.		Sunday 26.		Thursday 30.	
0	+21 8.7	−5 57.0	+20 24.5	−6 12.8	+19 34.9	−6 19.7	+18 40.1	−6 16.8
2	21 7.8	5 57.4	20 23.5	6 13.0	19 33.8	6 19.7	18 38.9	6 16.6
4	21 7.0	5 57.8	20 22.5	6 13.3	19 32.7	6 19.7	18 37.7	6 16.5
6	21 6.1	5 58.2	20 21.6	6 13.5	19 31.6	6 19.8	18 36.5	6 16.3
8	21 5.2	5 58.6	20 20.6	6 13.7	19 30.5	6 19.8	18 35.3	6 16.1
10	21 4.4	5 59.0	20 19.6	6 14.0	19 29.4	6 19.8	18 34.1	6 16.0
12	21 3.5	5 59.4	20 18.6	6 14.2	19 28.3	6 19.8	18 32.9	6 15.8
14	21 2.6	5 59.8	20 17.6	6 14.4	19 27.2	6 19.8	18 31.7	6 15.6
16	21 1.7	6 0.2	20 16.6	6 14.6	19 26.1	6 19.8	18 30.5	6 15.4
18	21 0.9	6 0.6	20 15.6	6 14.8	19 25.0	6 19.9	18 29.3	6 15.2
20	21 0.0	6 0.9	20 14.6	6 15.0	19 23.9	6 19.9	18 28.0	6 14.9
22	20 59.1	6 1.3	20 13.6	6 15.2	19 22.8	6 19.9	18 26.8	6 14.7
H. D.	0.4	0.2	0.5	0.1	0.6	0.0	0.6	0.1
	Sunday 19.		Thursday 23.		Monday 27.		Friday 31.	
0	+20 58.2	−6 1.7	+20 12.6	−6 15.4	+19 21.7	−6 19.9	+18 25.6	−6 14.5
2	20 57.3	6 2.1	20 11.6	6 15.6	19 20.6	6 19.9	18 24.4	6 14.3
4	20 56.4	6 2.4	20 10.6	6 15.8	19 19.4	6 19.8	18 23.2	6 14.1
6	20 55.5	6 2.8	20 9.6	6 16.0	19 18.3	6 19.8	18 22.0	6 13.9
8	20 54.6	6 3.2	20 8.6	6 16.1	19 17.2	6 19.8	18 20.7	6 13.6
10	20 53.7	6 3.5	20 7.6	6 16.3	19 16.0	6 19.7	18 19.5	6 13.4
12	20 52.8	6 3.9	20 6.6	6 16.5	19 14.9	6 19.7	18 18.3	6 13.2
14	20 51.9	6 4.3	20 5.6	6 16.7	19 13.8	6 19.7	18 17.1	6 12.9
16	20 51.0	6 4.6	20 4.5	6 16.8	19 12.6	6 19.6	18 15.8	6 12.7
18	20 50.1	6 5.0	20 3.5	6 17.0	19 11.5	6 19.6	18 14.6	6 12.4
20	20 49.1	6 5.3	20 2.5	6 17.1	19 10.4	6 19.6	18 13.3	6 12.1
22	20 48.2	6 5.7	20 1.4	6 17.3	19 9.2	6 19.5	+18 12.1	−6 11.9
H. D.	0.5	0.2	0.5	0.1	0.6	0.0	0.6	0.1
	Monday 20.		Friday 24.		Tuesday 28.			
0	+20 47.3	−6 6.0	+20 0.4	−6 17.4	+19 8.1	−6 19.5		
2	20 46.4	6 6.3	19 59.4	6 17.5	19 7.0	6 19.4		
4	20 45.4	6 6.6	19 58.3	6 17.7	19 5.8	6 19.3		
6	20 44.5	6 7.0	19 57.3	6 17.8	19 4.7	6 19.3		
8	20 43.6	6 7.3	19 56.2	6 17.9	19 3.5	6 19.2		
10	20 42.6	6 7.6	19 55.2	6 18.1	19 2.4	6 19.1		
12	20 41.7	6 7.9	19 54.1	6 18.2	19 1.2	6 19.0		
14	20 40.8	6 8.2	19 53.1	6 18.3	19 0.1	6 18.9		
16	20 39.8	6 8.5	19 52.0	6 18.4	18 58.9	6 18.8		
18	20 38.9	6 8.8	19 51.0	6 18.5	18 57.8	6 18.8		
20	20 38.0	6 9.1	19 49.9	6 18.6	18 56.6	6 18.7		
22	+20 37.0	−6 9.4	+19 48.9	−6 18.7	+18 55.5	−6 18.6		
H. D.	0.5	0.2	0.5	0.1	0.6	0.0		

SEMIDIAMETER.

	′
July 1	15.76
11	15.76
21	15.77
31	15.79

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Saturday 1.		Wednesday 5.		Sunday 9.		Thursday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+18 10.8	−6 11.6	+17 8.8	−5 53.9	+16 2.4	−5 26.5	+14 51.8	−4 50.1
2	18 9.6	6 11.3	17 7.5	5 53.4	16 1.0	5 25.8	14 50.3	4 49.2
4	18 8.3	6 11.1	17 6.1	5 52.9	15 59.5	5 25.2	14 48.8	4 48.4
6	18 7.1	6 10.8	17 4.8	5 52.5	15 58.1	5 24.5	14 47.3	4 47.5
8	18 5.8	6 10.5	17 3.5	5 52.0	15 56.6	5 23.8	14 45.7	4 46.6
10	18 4.6	6 10.3	17 2.1	5 51.5	15 55.2	5 23.2	14 44.2	4 45.8
12	18 3.3	6 10.0	17 0.8	5 51.0	15 53.7	5 22.5	14 42.7	4 44.9
14	18 2.1	6 9.7	16 59.4	5 50.5	15 52.3	5 21.8	14 41.2	4 44.0
16	18 0.8	6 9.4	16 58.1	5 50.0	15 50.8	5 21.1	14 39.6	4 43.1
18	17 59.6	6 9.1	16 56.7	5 49.5	15 49.4	5 20.4	14 38.1	4 42.2
20	17 58.3	6 8.7	16 55.3	5 49.0	15 48.0	5 19.7	14 36.6	4 41.4
22	17 57.1	6 8.4	16 54.0	5 48.5	15 46.5	5 19.0	14 35.0	4 40.5
H. D.	0.6	0.1	0.7	0.2	0.7	0.3	0.8	0.4
	Sunday 2.		Thursday 6.		Monday 10.		Friday 14.	
0	+17 55.8	−6 8.1	+16 52.6	−5 48.0	+15 45.1	−5 18.3	+14 33.5	−4 39.6
2	17 54.5	6 7.8	16 51.2	5 47.5	15 43.6	5 17.6	14 32.0	4 38.7
4	17 53.2	6 7.4	16 49.9	5 46.9	15 42.2	5 16.8	14 30.4	4 37.8
6	17 52.0	6 7.1	16 48.5	5 46.4	15 40.7	5 16.1	14 28.9	4 36.9
8	17 50.7	6 6.8	16 47.1	5 45.8	15 39.2	5 15.4	14 27.4	4 35.9
10	17 49.4	6 6.4	16 45.8	5 45.3	15 37.8	5 14.6	14 25.8	4 35.0
12	17 48.1	6 6.1	16 44.4	5 44.7	15 36.3	5 13.9	14 24.3	4 34.1
14	17 46.8	6 5.8	16 43.0	5 44.2	15 34.9	5 13.2	14 22.8	4 33.2
16	17 45.5	6 5.4	16 41.6	5 43.6	15 33.4	5 12.4	14 21.2	4 32.3
18	17 44.3	6 5.1	16 40.3	5 43.1	15 32.0	5 11.7	14 19.7	4 31.4
20	17 43.0	6 4.7	16 38.9	5 42.5	15 30.5	5 10.9	14 18.1	4 30.4
22	17 41.7	6 4.4	16 37.5	5 42.0	15 29.1	5 10.2	14 16.6	4 29.5
H. D.	0.6	0.2	0.7	0.3	0.7	0.4	0.8	0.5
	Monday 3.		Friday 7.		Tuesday 11.		Saturday 15.	
0	+17 40.4	−6 4.0	+16 36.1	−5 41.4	+15 27.6	−5 9.4	+14 15.0	−4 28.6
2	17 39.1	6 3.6	16 34.7	5 40.8	15 26.1	5 8.6	14 13.5	4 27.7
4	17 37.8	6 3.2	16 33.3	5 40.2	15 24.6	5 7.9	14 11.9	4 26.7
6	17 36.5	6 2.9	16 32.0	5 39.7	15 23.2	5 7.1	14 10.4	4 25.8
8	17 35.2	6 2.5	16 30.6	5 39.1	15 21.7	5 6.3	14 8.8	4 24.8
10	17 33.9	6 2.1	16 29.2	5 38.5	15 20.2	5 5.6	14 7.3	4 23.9
12	17 32.6	6 1.7	16 27.8	5 37.9	15 18.7	5 4.8	14 5.7	4 22.9
14	17 31.3	6 1.3	16 26.4	5 37.3	15 17.2	5 4.0	14 4.1	4 21.9
16	17 30.0	6 0.9	16 25.0	5 36.7	15 15.7	5 3.2	14 2.6	4 20.9
18	17 28.7	6 0.5	16 23.6	5 36.1	15 14.3	5 2.4	14 1.0	4 19.9
20	17 27.4	6 0.1	16 22.2	5 35.5	15 12.8	5 1.6	13 59.4	4 19.0
22	17 26.1	5 59.7	16 20.8	5 34.9	15 11.3	5 0.8	13 57.9	4 18.0
H. D.	0.7	0.2	0.7	0.3	0.7	0.4	0.8	0.5
	Tuesday 4.		Saturday 8.		Wednesday 12.		Sunday 16.	
0	+17 24.8	−5 59.3	+16 19.4	−5 34.3	+15 9.8	−5 0.0	+13 56.3	−4 17.0
2	17 23.5	5 58.9	16 18.0	5 33.7	15 8.3	4 59.2	13 54.7	4 16.0
4	17 22.1	5 58.4	16 16.6	5 33.0	15 6.8	4 58.4	13 53.1	4 15.0
6	17 20.8	5 58.0	16 15.2	5 32.4	15 5.3	4 57.6	13 51.6	4 14.0
8	17 19.5	5 57.6	16 13.7	5 31.8	15 3.8	4 56.7	13 50.0	4 13.1
10	17 18.1	5 57.1	16 12.3	5 31.1	15 2.3	4 55.9	13 48.4	4 12.1
12	17 16.8	5 56.7	16 10.9	5 30.5	15 0.8	4 55.1	13 46.8	4 11.1
14	17 15.5	5 56.2	16 9.5	5 29.8	14 59.3	4 54.3	13 45.2	4 10.1
16	17 14.1	5 55.8	16 8.1	5 29.2	14 57.8	4 53.4	13 43.6	4 9.1
18	17 12.8	5 55.3	16 6.6	5 28.5	14 56.3	4 52.6	13 42.1	4 8.1
20	17 11.5	5 54.8	16 5.2	5 27.8	14 54.8	4 51.8	13 40.5	4 7.0
22	+17 10.1	−5 54.4	+16 3.8	−5 27.2	+14 53.3	−4 50.9	+13 38.9	−4 6.0
H. D.	0.7	0.2	0.7	0.3	0.8	0.4	0.8	0.5

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Monday 17.		Friday 21.		Tuesday 25.		Saturday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+13 37.3	−4 5.0	+12 19.4	−3 11.9	+10 58.4	−2 11.2	+9 34.6	−1 3.7
2	13 35.7	4 4.0	12 17.8	3 10.7	10 56.7	2 9.9	9 32.8	1 2.2
4	13 34.1	4 2.9	12 16.1	3 9.5	10 54.9	2 8.5	9 31.0	1 0.7
6	13 32.6	4 1.9	12 14.5	3 8.3	10 53.2	2 7.2	9 29.3	0 59.3
8	13 31.0	4 0.9	12 12.8	3 7.1	10 51.5	2 5.8	9 27.5	0 57.8
10	13 29.4	3 59.8	12 11.2	3 5.9	10 49.7	2 4.5	9 25.7	0 56.3
12	13 27.8	3 58.8	12 9.5	3 4.7	10 48.0	2 3.1	9 23.9	0 54.8
14	13 26.2	3 57.7	12 7.8	3 3.5	10 46.3	2 1.7	9 22.1	0 53.3
16	13 24.6	3 56.7	12 6.1	3 2.3	10 44.6	2 0.4	9 20.4	0 51.8
18	13 23.0	3 55.6	12 4.5	3 1.1	10 42.9	1 59.0	9 18.6	0 50.3
20	13 21.4	3 54.5	12 2.8	2 59.8	10 41.1	1 57.6	9 16.8	0 48.8
22	13 19.8	3 53.5	12 1.1	2 58.6	10 39.4	1 56.3	9 15.1	0 47.3
H. D.	0.8	0.5	0.8	0.6	0.9	0.7	0.9	0.7
	Tuesday 18.		Saturday 22.		Wednesday 26.		Sunday 30.	
0	+13 18.2	−3 52.4	+11 59.4	−2 57.4	+10 37.7	−1 54.9	+9 13.3	−0 45.8
2	13 16.6	3 51.3	11 57.7	2 56.2	10 36.0	1 53.5	9 11.5	0 44.3
4	13 15.0	3 50.3	11 56.1	2 54.9	10 34.2	1 52.1	9 9.7	0 42.8
6	13 13.4	3 49.2	11 54.4	2 53.7	10 32.5	1 50.8	9 7.9	0 41.3
8	13 11.7	3 48.1	11 52.7	2 52.5	10 30.8	1 49.4	9 6.1	0 39.7
10	13 10.1	3 47.1	11 51.1	2 51.2	10 29.0	1 48.0	9 4.3	0 38.2
12	13 8.5	3 46.0	11 49.4	2 50.0	10 27.3	1 46.6	9 2.5	0 36.7
14	13 6.9	3 44.9	11 47.7	2 48.7	10 25.6	1 45.2	9 0.7	0 35.2
16	13 5.3	3 43.8	11 46.0	2 47.5	10 23.8	1 43.8	8 58.9	0 33.7
18	13 3.7	3 42.7	11 44.4	2 46.2	10 22.1	1 42.4	8 57.2	0 32.2
20	13 2.0	3 41.6	11 42.7	2 44.9	10 20.3	1 41.0	8 55.4	0 30.6
22	13 0.4	3 40.5	11 41.0	2 43.7	10 18.6	1 39.6	8 53.6	0 29.1
H. D.	0.8	0.5	0.8	0.6	0.9	0.7	0.9	0.8
	Wednesday 19.		Sunday 23.		Thursday 27.		Monday 31.	
0	+12 58.8	−3 39.4	+11 39.3	−2 42.4	+10 16.8	−1 38.2	+8 51.8	−0 27.6
2	12 57.2	3 38.3	11 37.6	2 41.1	10 15.1	1 36.8	8 50.0	0 26.1
4	12 55.5	3 37.2	11 35.9	2 39.9	10 13.3	1 35.4	8 48.2	0 24.5
6	12 53.9	3 36.1	11 34.2	2 38.6	10 11.6	1 34.0	8 46.4	0 23.0
8	12 52.3	3 34.9	11 32.5	2 37.3	10 9.8	1 32.5	8 44.6	0 21.4
10	12 50.6	3 33.8	11 30.8	2 36.1	10 8.1	1 31.1	8 42.8	0 19.9
12	12 49.0	3 32.7	11 29.1	2 34.8	10 6.3	1 29.7	8 41.0	0 18.3
14	12 47.4	3 31.6	11 27.4	2 33.5	10 4.6	1 28.3	8 39.2	0 16.8
16	12 45.7	3 30.4	11 25.7	2 32.2	10 2.8	1 26.8	8 37.4	0 15.2
18	12 44.1	3 29.3	11 24.0	2 30.9	10 1.1	1 25.4	8 35.5	0 13.7
20	12 42.5	3 28.2	11 22.3	2 29.6	9 59.3	1 24.0	8 33.7	0 12.1
22	12 40.8	3 27.0	11 20.6	2 28.3	9 57.6	1 22.5	+8 31.9	−0 10.6
H. D.	0.8	0.6	0.8	0.6	0.9	0.7	0.9	0.8
	Thursday 20.		Monday 24.		Friday 28.			
0	+12 39.2	−3 25.9	+11 18.9	−2 27.0	+ 9 55.8	−1 21.1		
2	12 37.6	3 24.7	11 17.2	2 25.7	9 54.0	1 19.7		
4	12 35.9	3 23.6	11 15.5	2 24.4	9 52.3	1 18.2		
6	12 34.3	3 22.4	11 13.8	2 23.1	9 50.5	1 16.8		
8	12 32.6	3 21.2	11 12.1	2 21.8	9 48.7	1 15.3		
10	12 31.0	3 20.1	11 10.4	2 20.5	9 47.0	1 13.9		
12	12 29.3	3 18.9	11 8.7	2 19.2	9 45.2	1 12.4		
14	12 27.7	3 17.7	11 7.0	2 17.9	9 43.4	1 11.0		
16	12 26.0	3 16.6	11 5.3	2 16.5	9 41.7	1 9.5		
18	12 24.4	3 15.4	11 3.6	2 15.2	9 39.9	1 8.1		
20	12 22.7	3 14.2	11 1.8	2 13.9	9 38.1	1 6.6		
22	+12 21.1	−3 13.1	+11 0.1	−2 12.5	+ 9 36.4	−1 5.2		
H. D.	0.8	0.6	0.9	0.7	0.9	0.7		

SEMIDIAMETER.

	′
Aug. 1	15.79
11	15.81
21	15.84
31	15.88

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Tuesday 1.		Saturday 5.		Wednesday 9.		Sunday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+8 30.1	−0 9.0	+7 2.3	+1 8.2	+5 32.7	+2 29.1	+4 1.5	+3 52.5
2	8 28.3	0 7.4	7 0.5	1 9.8	5 30.8	2 30.8	3 59.6	3 54.2
4	8 26.5	0 5.9	6 58.6	1 11.5	5 28.9	2 32.5	3 57.7	3 56.0
6	8 24.7	0 4.3	6 56.8	1 13.1	5 27.1	2 34.2	3 55.8	3 57.7
8	8 22.9	0 2.7	6 54.9	1 14.8	5 25.2	2 36.0	3 53.9	3 59.5
10	8 21.1	−0 1.2	6 53.1	1 16.4	5 23.3	2 37.7	3 52.0	4 1.2
12	8 19.3	+0 0.4	6 51.2	1 18.1	5 21.4	2 39.4	3 50.1	4 3.0
14	8 17.5	0 2.0	6 49.4	1 19.8	5 19.5	2 41.1	3 48.2	4 4.8
16	8 15.7	0 3.6	6 47.5	1 21.4	5 17.6	2 42.9	3 46.2	4 6.5
18	8 13.9	0 5.1	6 45.7	1 23.1	5 15.7	2 44.6	3 44.3	4 8.3
20	8 12.0	0 6.7	6 43.8	1 24.8	5 13.8	2 46.3	3 42.4	4 10.1
22	8 10.2	0 8.3	6 42.0	1 26.4	5 11.9	2 48.1	3 40.4	4 11.8
H. D.	0.9	0.8	0.9	0.8	0.9	0.9	1.0	0.9
	Wednesday 2.		Sunday 6.		Thursday 10.		Monday 14.	
0	+8 8.4	+0 9.9	+6 40.1	+1 28.1	+5 10.0	+2 49.8	+3 38.5	+4 13.6
2	8 6.6	0 11.5	6 38.2	1 29.8	5 8.1	2 51.5	3 36.6	4 15.4
4	8 4.7	0 13.1	6 36.4	1 31.5	5 6.2	2 53.3	3 34.7	4 17.1
6	8 2.9	0 14.6	6 34.5	1 33.2	5 4.4	2 55.0	3 32.8	4 18.9
8	8 1.1	0 16.2	6 32.6	1 34.8	5 2.5	2 56.7	3 30.8	4 20.7
10	7 59.2	0 17.8	6 30.8	1 36.5	5 0.6	2 58.5	3 28.9	4 22.4
12	7 57.4	0 19.4	6 28.9	1 38.2	4 58.7	3 0.2	3 27.0	4 24.2
14	7 55.6	0 21.0	6 27.0	1 39.9	4 56.8	3 1.9	3 25.1	4 25.9
16	7 53.8	0 22.6	6 25.2	1 41.6	4 54.9	3 3.7	3 23.2	4 27.7
18	7 52.0	0 24.2	6 23.3	1 43.2	4 53.0	3 5.4	3 21.3	4 29.4
20	7 50.1	0 25.8	6 21.4	1 44.9	4 51.1	3 7.1	3 19.3	4 31.2
22	7 48.3	0 27.4	6 19.6	1 46.6	4 49.2	3 8.9	3 17.4	4 32.9
H. D.	0.9	0.8	0.9	0.8	0.9	0.9	1.0	0.9
	Thursday 3.		Monday 7.		Friday 11.		Tuesday 15.	
0	+7 46.5	+0 29.0	+6 17.7	+1 48.3	+4 47.3	+3 10.6	+3 15.5	+4 34.7
2	7 44.7	0 30.6	6 15.8	1 50.0	4 45.4	3 12.3	3 13.6	4 36.5
4	7 42.8	0 32.2	6 14.0	1 51.7	4 43.5	3 14.1	3 11.6	4 38.2
6	7 41.0	0 33.8	6 12.1	1 53.3	4 41.6	3 15.8	3 9.7	4 40.0
8	7 39.2	0 35.5	6 10.2	1 55.0	4 39.7	3 17.5	3 7.8	4 41.8
10	7 37.3	0 37.1	6 8.4	1 56.7	4 37.8	3 19.3	3 5.8	4 43.5
12	7 35.5	0 38.7	6 6.5	1 58.4	4 35.9	3 21.0	3 3.9	4 45.3
14	7 33.7	0 40.3	6 4.6	2 0.1	4 34.0	3 22.7	3 2.0	4 47.1
16	7 31.8	0 42.0	6 2.8	2 1.8	4 32.1	3 24.5	3 0.1	4 48.8
18	7 30.0	0 43.6	6 0.9	2 3.5	4 30.2	3 26.2	2 58.2	4 50.6
20	7 28.2	0 45.2	5 59.0	2 5.2	4 28.2	3 28.0	2 56.2	4 52.4
22	7 26.3	0 46.9	5 57.2	2 6.9	4 26.3	3 29.7	2 54.3	4 54.1
H. D.	0.9	0.8	0.9	0.8	1.0	0.9	1.0	0.9
	Friday 4.		Tuesday 8.		Saturday 12.		Wednesday 16.	
0	+7 24.5	+0 48.5	+5 55.3	+2 8.6	+4 24.4	+3 31.5	+2 52.4	+4 55.9
2	7 22.7	0 50.1	5 53.4	2 10.3	4 22.5	3 33.2	2 50.5	4 57.7
4	7 20.8	0 51.8	5 51.5	2 12.0	4 20.6	3 35.0	2 48.5	4 59.4
6	7 19.0	0 53.4	5 49.7	2 13.7	4 18.7	3 36.7	2 46.6	5 1.2
8	7 17.1	0 55.0	5 47.8	2 15.4	4 16.8	3 38.5	2 44.7	5 3.0
10	7 15.3	0 56.7	5 45.9	2 17.1	4 14.9	3 40.2	2 42.7	5 4.7
12	7 13.4	0 58.3	5 44.0	2 18.8	4 13.0	3 42.0	2 40.8	5 6.5
14	7 11.6	0 59.9	5 42.1	2 20.5	4 11.1	3 43.7	2 38.9	5 8.3
16	7 9.7	1 1.6	5 40.2	2 22.2	4 9.2	3 45.5	2 36.9	5 10.0
18	7 7.9	1 3.2	5 38.4	2 23.9	4 7.3	3 47.2	2 35.0	5 11.8
20	7 6.0	1 4.9	5 36.5	2 25.7	4 5.3	3 49.0	2 33.1	5 13.6
22	+7 4.2	+1 6.5	+5 34.6	+2 27.4	+4 3.4	+3 50.7	+2 31.1	+5 15.3
H. D.	0.9	0.8	0.9	0.9	1.0	0.9	1.0	0.9

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

M. T.	Sun's Declination	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Thursday 17.		Monday 21.		Friday 25.		Tuesday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	+2 29.2	+5 17.1	+0 56.1	+6 41.6	−0 37.5	+8 5.1	−2 11.1	+ 9 26.4
2	2 27.3	5 18.9	0 54.2	6 43.4	0 39.4	8 6.8	2 13.0	9 28.1
4	2 25.3	5 20.6	0 52.2	6 45.1	0 41.4	8 8.5	2 15.0	9 29.7
6	2 23.4	5 22.4	0 50.3	6 46.9	0 43.3	8 10.3	2 16.9	9 31.4
8	2 21.5	5 24.1	0 48.3	6 48.6	0 45.3	8 12.0	2 18.8	9 33.0
10	2 19.5	5 25.9	0 46.4	6 50.4	0 47.2	8 13.7	2 20.8	9 34.7
12	2 17.6	5 27.6	0 44.4	6 52.1	0 49.2	8 15.4	2 22.7	9 36.3
14	2 15.7	5 29.4	0 42.5	6 53.9	0 51.1	8 17.1	2 24.7	9 38.0
16	2 13.7	5 31.1	0 40.5	6 55.6	0 53.1	8 18.8	2 26.6	9 39.6
18	2 11.8	5 32.9	0 38.6	6 57.4	0 55.0	8 20.6	2 28.6	9 41.3
20	2 9.9	5 34.7	0 36.6	6 59.1	0 57.0	8 22.3	2 30.5	9 42.9
22	2 7.9	5 36.4	0 34.7	7 0.9	0 58.9	8 24.0	2 32.5	9 44.6
H. D.	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.8
	Friday 18.		Tuesday 22.		Saturday 26.		Wednesday 30.	
0	+2 6.0	+5 38.2	+0 32.7	+7 2.6	−1 0.9	+8 25.7	−2 34.4	+ 9 46.2
2	2 4.1	5 40.0	0 30.8	7 4.4	1 2.9	8 27.4	2 36.4	9 47.8
4	2 2.1	5 41.7	0 28.8	7 6.1	1 4.8	8 29.1	2 38.3	9 49.5
6	2 0.2	5 43.5	0 26.9	7 7.9	1 6.8	8 30.8	2 40.3	9 51.1
8	1 58.2	5 45.3	0 24.9	7 9.6	1 8.7	8 32.5	2 42.2	9 52.7
10	1 56.3	5 47.0	0 23.0	7 11.4	1 10.7	8 34.2	2 44.2	9 54.4
12	1 54.3	5 48.8	0 21.0	7 13.1	1 12.6	8 35.9	2 46.1	9 56.0
14	1 52.4	5 50.6	0 19.1	7 14.8	1 14.6	8 37.6	2 48.0	9 57.6
16	1 50.4	5 52.3	0 17.1	7 16.6	1 16.5	8 39.3	2 50.0	9 59.3
18	1 48.5	5 54.1	0 15.2	7 18.3	1 18.5	8 41.0	2 51.9	10 0.9
20	1 46.6	5 55.9	0 13.2	7 20.0	1 20.4	8 42.7	2 53.8	10 2.5
22	1 44.6	5 57.6	0 11.3	7 21.8	1 22.4	8 44.4	−2 55.8	+10 4.2
H. D.	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.8
	Saturday 19.		Wednesday 23.		Sunday 27.			
0	+1 42.7	+5 59.4	+0 9.3	+7 23.5	−1 24.3	+8 46.1		
2	1 40.8	6 1.2	0 7.4	7 25.3	1 26.3	8 47.8		
4	1 38.8	6 2.9	0 5.4	7 27.0	1 28.2	8 49.5		
6	1 36.9	6 4.7	0 3.5	7 28.8	1 30.2	8 51.2		
8	1 35.0	6 6.5	+0 1.5	7 30.5	1 32.1	8 52.8		
10	1 33.0	6 8.2	−0 0.4	7 32.3	1 34.1	8 54.5		
12	1 31.1	6 10.0	0 2.4	7 34.0	1 36.0	8 56.2		
14	1 29.2	6 11.8	0 4.3	7 35.7	1 38.0	8 57.9		
16	1 27.2	6 13.5	0 6.3	7 37.5	1 39.9	8 59.6		
18	1 25.3	6 15.3	0 8.2	7 39.2	1 41.9	9 1.3		
20	1 23.3	6 17.0	0 10.2	7 40.9	1 43.8	9 3.0		
22	1 21.4	6 18.8	0 12.1	7 42.7	1 45.8	9 4.7		
H. D.	1.0	0.9	1.0	0.9	1.0	0.8		
	Sunday 20.		Thursday 24.		Monday 28.			
0	+1 19.4	+6 20.5	−0 14.1	+7 44.4	−1 47.7	+9 6.4		
2	1 17.5	6 22.3	0 16.0	7 46.1	1 49.7	9 8.1		
4	1 15.5	6 24.0	0 18.0	7 47.9	1 51.6	9 9.7		
6	1 13.6	6 25.8	0 19.9	7 49.6	1 53.6	9 11.4		
8	1 11.6	6 27.6	0 21.9	7 51.3	1 55.5	9 13.1		
10	1 9.7	6 29.3	0 23.8	7 53.1	1 57.5	9 14.7		
12	1 7.7	6 31.1	0 25.8	7 54.8	1 59.4	9 16.4		
14	1 5.8	6 32.9	0 27.7	7 56.5	2 1.4	9 18.1		
16	1 3.8	6 34.6	0 29.7	7 58.2	2 3.3	9 19.7		
18	1 1.9	6 36.4	0 31.6	8 0.0	2 5.3	9 21.4		
20	1 0.0	6 38.1	0 33.6	8 1.7	2 7.2	9 23.1		
22	+0 58.0	+6 39.9	−0 35.5	+8 3.4	−2 9.2	+9 24.7		
H. D.	1.0	0.9	1.0	0.9	1.0	0.8		

SEMIDIAMETER.

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Sept. 1	15.88
11	15.92
21	15.96
Oct. 1	16.01

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Thursday 1.		Monday 5.		Friday 9.		Tuesday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−2 57.7	+10 5.8	−4 30.7	+11 21.2	−6 2.8	+12 30.8	−7 33.6	+13 33.3
2	2 59.7	10 7.4	4 32.6	11 22.7	6 4.7	12 32.2	7 35.5	13 34.8
4	3 1.6	10 9.0	4 34.5	11 24.2	6 6.6	12 33.5	7 37.4	13 35.7
6	3 3.6	10 10.7	4 36.5	11 25.7	6 8.5	12 34.9	7 39.3	13 36.9
8	3 5.5	10 12.3	4 38.4	11 27.2	6 10.4	12 36.3	7 41.1	13 38.1
10	3 7.5	10 13.9	4 40.3	11 28.7	6 12.3	12 37.6	7 43.0	13 39.3
12	3 9.4	10 15.5	4 42.2	11 30.2	6 14.2	12 39.0	7 44.9	13 40.5
14	3 11.3	10 17.1	4 44.1	11 31.7	6 16.1	12 40.4	7 46.8	13 41.7
16	3 13.3	10 18.7	4 46.1	11 33.2	6 18.0	12 41.7	7 48.6	13 42.9
18	3 15.2	10 20.3	4 48.0	11 34.7	6 19.9	12 43.1	7 50.5	13 44.1
20	3 17.1	10 21.9	4 49.9	11 36.2	6 21.8	12 44.5	7 52.4	13 45.3
22	3 19.1	10 23.5	4 51.9	11 37.7	6 23.7	12 45.8	7 54.2	13 46.4
H. D.	1.0	0.8	1.0	0.7	0.9	0.7	0.9	0.6
	Friday 2.		Tuesday 6.		Saturday 10.		Wednesday 14.	
0	−3 21.0	+10 25.1	−4 53.8	+11 39.2	−6 25.6	+12 47.2	−7 56.1	+13 47.6
2	3 23.0	10 26.7	4 55.7	11 40.7	6 27.5	12 48.5	7 58.0	13 48.8
4	3 24.9	10 28.3	4 57.6	11 42.2	6 29.4	12 49.9	7 59.8	13 49.9
6	3 26.9	10 29.9	4 59.6	11 43.7	6 31.3	12 51.2	8 1.7	13 51.1
8	3 28.8	10 31.5	5 1.5	11 45.1	6 33.2	12 52.5	8 3.6	13 52.3
10	3 30.8	10 33.1	5 3.4	11 46.6	6 35.1	12 53.9	8 5.4	13 53.4
12	3 32.7	10 34.7	5 5.3	11 48.1	6 37.0	12 55.2	8 7.3	13 54.6
14	3 34.6	10 36.3	5 7.2	11 49.6	6 38.9	12 56.5	8 9.2	13 55.7
16	3 36.6	10 37.8	5 9.2	11 51.0	6 40.8	12 57.8	8 11.0	13 56.9
18	3 38.5	10 39.4	5 11.1	11 52.5	6 42.7	12 59.1	8 12.9	13 58.0
20	3 40.4	10 41.0	5 13.0	11 53.9	6 44.6	13 0.4	8 14.7	13 59.1
22	3 42.4	10 42.5	5 15.0	11 55.4	6 46.5	13 1.7	8 16.6	14 0.3
H. D.	1.0	0.8	1.0	0.7	0.9	0.7	0.9	0.6
	Saturday 3.		Wednesday 7.		Sunday 11.		Thursday 15.	
0	−3 44.3	+10 44.1	−5 16.9	+11 56.8	−6 48.4	+13 3.0	−8 18.4	+14 1.4
2	3 46.2	10 45.7	5 18.8	11 58.3	6 50.3	13 4.3	8 20.3	14 2.5
4	3 48.2	10 47.2	5 20.7	11 59.7	6 52.2	13 5.6	8 22.1	14 3.6
6	3 50.1	10 48.8	5 22.7	12 1.2	6 54.1	13 6.9	8 24.0	14 4.8
8	3 52.0	10 50.4	5 24.6	12 2.6	6 55.9	13 8.2	8 25.9	14 5.9
10	3 54.0	10 51.9	5 26.5	12 4.1	6 57.8	13 9.5	8 27.7	14 7.0
12	3 55.9	10 53.5	5 28.4	12 5.5	6 59.7	13 10.8	8 29.6	14 8.1
14	3 57.8	10 55.1	5 30.3	12 6.9	7 1.6	13 12.1	8 31.5	14 9.2
16	3 59.8	10 56.6	5 32.2	12 8.3	7 3.5	13 13.3	8 33.3	14 10.3
18	4 1.7	10 58.2	5 34.1	12 9.8	7 5.4	13 14.6	8 35.2	14 11.4
20	4 3.6	10 59.7	5 36.0	12 11.2	7 7.2	13 15.9	8 37.0	14 12.4
22	4 5.6	11 1.3	5 37.9	12 12.6	7 9.1	13 17.1	8 38.9	14 13.5
H. D.	1.0	0.8	1.0	0.7	0.9	0.6	0.9	0.6
	Sunday 4.		Thursday 8.		Monday 12.		Friday 16.	
0	−4 7.5	+11 2.8	−5 39.8	+12 14.0	−7 11.0	+13 18.4	−8 40.7	+14 14.6
2	4 9.4	11 4.4	5 41.7	12 15.4	7 12.9	13 19.7	8 42.6	14 15.7
4	4 11.4	11 5.9	5 43.6	12 16.8	7 14.8	13 20.9	8 44.4	14 16.7
6	4 13.3	11 7.5	5 45.6	12 18.3	7 16.7	13 22.2	8 46.3	14 17.8
8	4 15.2	11 9.0	5 47.5	12 19.7	7 18.5	13 23.4	8 48.1	14 18.9
10	4 17.2	11 10.6	5 49.4	12 21.1	7 20.4	13 24.7	8 50.0	14 19.9
12	4 19.1	11 12.1	5 51.3	12 22.5	7 22.3	13 25.9	8 51.8	14 21.0
14	4 21.0	11 13.6	5 53.2	12 23.9	7 24.2	13 27.1	8 53.6	14 22.1
16	4 23.0	11 15.1	5 55.1	12 25.3	7 26.1	13 28.4	8 55.5	14 23.1
18	4 24.9	11 16.7	5 57.1	12 26.7	7 28.0	13 29.6	8 57.3	14 24.2
20	4 26.8	11 18.2	5 59.0	12 28.0	7 29.8	13 30.8	8 59.1	14 25.2
22	4 28.8	+11 19.7	−6 0.9	+12 29.4	−7 31.7	+13 32.1	−9 1.0	+14 26.3
H. D.	1.0	0.8	1.0	0.7	0.9	0.6	0.9	0.5

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Saturday 17.		Wednesday 21.		Sunday 25.		Thursday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	− 9 2.8	+14 27.3	−10 30.0	+15 11.8	−11 54.6	+15 46.0	−13 16.3	+16 9.2
2	9 4.6	14 28.3	10 31.8	15 12.6	11 56.3	15 46.6	13 18.0	16 9.6
4	9 6.5	14 29.3	10 33.6	15 13.4	11 58.1	15 47.2	13 19.6	16 9.9
6	9 8.3	14 30.4	10 35.4	15 14.2	11 59.8	15 47.8	13 21.3	16 10.3
8	9 10.1	14 31.4	10 37.1	15 15.0	12 1.5	15 48.3	13 23.0	16 10.6
10	9 12.0	14 32.4	10 38.9	15 15.8	12 3.3	15 48.9	13 24.6	16 11.0
12	9 13.8	14 33.4	10 40.7	15 16.6	12 5.0	15 49.5	13 26.3	16 11.3
14	9 15.6	14 34.4	10 42.5	15 17.4	12 6.7	15 50.1	13 28.0	16 11.6
16	9 17.5	14 35.4	10 44.3	15 18.2	12 8.4	15 50.6	13 29.6	16 11.9
18	9 19.3	14 36.4	10 46.1	15 19.0	12 10.2	15 51.2	13 31.3	16 12.2
20	9 21.1	14 37.3	10 47.8	15 19.7	12 11.9	15 51.8	13 32.9	16 12.5
22	9 23.0	14 38.3	10 49.6	15 20.5	12 13.6	15 52.3	13 34.6	16 12.8
H. D.	0.9	0.5	0.9	0.4	0.9	0.3	0.8	0.2
	Sunday 18.		Thursday 22.		Monday 26.		Friday 30.	
0	− 9 24.8	+14 39.3	−10 51.4	+15 21.3	−12 15.3	+15 52.9	−13 36.2	+16 13.1
2	9 26.6	14 40.3	10 53.2	15 22.1	12 17.0	15 53.4	13 37.9	16 13.4
4	9 28.5	14 41.2	10 54.9	15 22.8	12 18.7	15 53.9	13 39.5	16 13.7
6	9 30.3	14 42.2	10 56.7	15 23.6	12 20.5	15 54.5	13 41.2	16 14.0
8	9 32.1	14 43.2	10 58.5	15 24.4	12 22.2	15 55.0	13 42.8	16 14.2
10	9 34.0	14 44.1	11 0.2	15 25.1	12 23.9	15 55.5	13 44.5	16 14.5
12	9 35.8	14 45.1	11 2.0	15 25.9	12 25.6	15 56.0	13 46.1	16 14.8
14	9 37.6	14 46.1	11 3.8	15 26.6	12 27.3	15 56.5	13 47.7	16 15.1
16	9 39.4	14 47.0	11 5.5	15 27.3	12 29.0	15 57.0	13 49.4	16 15.3
18	9 41.3	14 48.0	11 7.3	15 28.1	12 30.7	15 57.5	13 51.0	16 15.6
20	9 43.1	14 48.9	11 9.1	15 28.8	12 32.4	15 58.0	13 52.6	16 15.8
22	9 44.9	14 49.9	11 10.8	15 29.5	12 34.1	15 58.5	13 54.3	16 16.1
H. D.	0.9	0.5	0.9	0.4	0.9	0.3	0.8	0.1
	Monday 19.		Friday 23.		Tuesday 27.		Saturday 31.	
0	− 9 46.7	+14 50.8	−11 12.6	+15 30.2	−12 35.8	+15 59.0	−13 55.9	+16 16.3
2	9 48.5	14 51.7	11 14.4	15 30.9	12 37.5	15 59.5	13 57.5	16 16.5
4	9 50.3	14 52.6	11 16.1	15 31.6	12 39.2	15 59.9	13 59.2	16 16.7
6	9 52.2	14 53.5	11 17.9	15 32.3	12 40.9	16 0.4	14 0.8	16 17.0
8	9 54.0	14 54.4	11 19.7	15 33.0	12 42.6	16 0.9	14 2.4	16 17.2
10	9 55.8	14 55.3	11 21.4	15 33.7	12 44.3	16 1.3	14 4.1	16 17.4
12	9 57.6	14 56.2	11 23.2	15 34.4	12 46.0	16 1.8	14 5.7	16 17.6
14	9 59.4	14 57.1	11 25.0	15 35.1	12 47.7	16 2.3	14 7.3	16 17.8
16	10 1.2	14 58.0	11 26.7	15 35.8	12 49.4	16 2.7	14 8.9	16 18.0
18	10 3.0	14 58.9	11 28.5	15 36.5	12 51.1	16 3.2	14 10.6	16 18.2
20	10 4.8	14 59.8	11 30.2	15 37.1	12 52.8	16 3.6	14 12.2	16 18.3
22	10 6.6	15 0.7	11 32.0	15 37.8	12 54.5	16 4.1	−14 13.8	+16 18.5
H. D.	0.9	0.5	0.9	0.3	0.8	0.2	0.8	0.1
	Tuesday 20.		Saturday 24.		Wednesday 28.			
0	−10 8.4	+15 1.6	−11 33.7	+15 38.5	−12 56.2	+16 4.5		
2	10 10.2	15 2.5	11 35.5	15 39.1	12 57.9	16 4.9		
4	10 12.0	15 3.3	11 37.2	15 39.8	12 59.6	16 5.3		
6	10 13.8	15 4.2	11 39.0	15 40.4	13 1.3	16 5.7		
8	10 15.6	15 5.0	11 40.7	15 41.0	13 2.9	16 6.1		
10	10 17.4	15 5.9	11 42.5	15 41.7	13 4.6	16 6.5		
12	10 19.2	15 6.7	11 44.2	15 42.3	13 6.3	16 6.9		
14	10 21.0	15 7.6	11 45.9	15 42.9	13 8.0	16 7.3		
16	10 22.8	15 8.4	11 47.7	15 43.5	13 9.6	16 7.7		
18	10 24.6	15 9.3	11 49.4	15 44.2	13 11.3	16 8.1		
20	10 26.4	15 10.1	11 51.1	15 44.8	13 13.0	16 8.4		
22	−10 28.2	+15 11.0	−11 52.9	+15 45.4	−13 14.6	+16 8.8		
H. D.	0.9	0.4	0.9	0.3	0.8	0.2		

SEMIDIAMETER.

	′
Oct. 1	16.01
11	16.06
21	16.10
31	16.15

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Sunday 1.		Thursday 5.		Monday 9.		Friday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−14 15.4	+16 18.7	−15 31.0	+16 20.4	−16 42.4	+16 8.8	−17 49.4	+15 43.
2	14 17.0	16 18.9	15 32.5	16 20.3	16 43.9	16 8.4	17 50.8	15 42.
4	14 18.6	16 19.0	15 34.0	16 20.2	16 45.3	16 8.0	17 52.1	15 42.
6	14 20.2	16 19.2	15 35.6	16 20.1	16 46.8	16 7.6	17 53.5	15 41.
8	14 21.8	16 19.4	15 37.1	16 19.9	16 48.2	16 7.2	17 54.8	15 40.
10	14 23.4	16 19.5	15 38.6	16 19.8	16 49.7	16 6.8	17 56.2	15 40.
12	14 25.0	16 19.7	15 40.1	16 19.7	16 51.1	16 6.4	17 57.5	15 39.
14	14 26.6	16 19.8	15 41.6	16 19.6	16 52.5	16 6.0	17 58.8	15 38.
16	14 28.2	16 19.9	15 43.1	16 19.4	16 53.9	16 5.5	18 0.1	15 37.
18	14 29.8	16 20.1	15 44.7	16 19.3	16 55.4	16 5.1	18 1.5	15 37.
20	14 31.4	16 20.2	15 46.2	16 19.1	16 56.8	16 4.7	18 2.8	15 36.
22	14 33.0	16 20.3	15 47.7	16 19.0	16 58.2	16 4.2	18 4.1	15 35.
H. D.	0.8	0.1	0.8	0.1	0.7	0.2	0.7	0.
	Monday 2.		Friday 6.		Tuesday 10.		Saturday 14.	
0	−14 34.6	+16 20.4	−15 49.2	+16 18.8	−16 59.6	+16 3.8	−18 5.4	+15 34.
2	14 36.2	16 20.5	15 50.7	16 18.6	17 1.0	16 3.3	18 6.7	15 34.
4	14 37.8	16 20.6	15 52.2	16 18.4	17 2.4	16 2.8	18 8.0	15 33.
6	14 39.4	16 20.7	15 53.8	16 18.3	17 3.9	16 2.4	18 9.4	15 32.
8	14 41.0	16 20.7	15 55.3	16 18.1	17 5.3	16 1.9	18 10.7	15 31.
10	14 42.6	16 20.8	15 56.8	16 17.9	17 6.7	16 1.4	18 12.0	15 31.
12	14 44.2	16 20.9	15 58.3	16 17.7	17 8.1	16 0.9	18 13.3	15 30.
14	14 45.8	16 21.0	15 59.8	16 17.5	17 9.5	16 0.4	18 14.6	15 29.
16	14 47.3	16 21.0	16 1.3	16 17.2	17 10.9	15 59.9	18 15.9	15 28.
18	14 48.9	16 21.1	16 2.8	16 17.0	17 12.3	15 59.4	18 17.2	15 27.
20	14 50.5	16 21.1	16 4.2	16 16.8	17 13.7	15 58.9	18 18.5	15 27.
22	14 52.0	16 21.2	16 5.7	16 16.5	17 15.1	15 58.4	18 19.8	15 26.
H. D.	0.8	0.0	0.8	0.1	0.7	0.2	0.7	0.
	Tuesday 3.		Saturday 7.		Wednesday 11.		Sunday 15.	
0	−14 53.6	+16 21.2	−16 7.2	+16 16.3	−17 16.5	+15 57.9	−18 21.1	+15 25.
2	14 55.2	16 21.2	16 8.7	16 16.1	17 17.9	15 57.4	18 22.4	15 24.
4	14 56.8	16 21.2	16 10.2	16 15.8	17 19.3	15 56.8	18 23.7	15 23.
6	14 58.4	16 21.3	16 11.7	16 15.6	17 20.7	15 56.3	18 25.0	15 23.
8	14 59.9	16 21.3	16 13.1	16 15.3	17 22.1	15 55.7	18 26.2	15 22.
10	15 1.5	16 21.3	16 14.6	16 15.1	17 23.5	15 55.2	18 27.5	15 21.
12	15 3.1	16 21.3	16 16.1	16 14.8	17 24.9	15 54.6	18 28.8	15 20.
14	15 4.7	16 21.3	16 17.6	16 14.5	17 26.3	15 51.0	18 30.1	15 19.
16	15 6.2	16 21.3	16 19.1	16 14.2	17 27.6	15 53.4	18 31.3	15 18.
18	15 7.8	16 21.3	16 20.6	16 13.9	17 29.0	15 52.9	18 32.6	15 17.
20	15 9.3	16 21.2	16 22.0	16 13.6	17 30.4	15 52.3	18 33.9	15 17.
22	15 10.9	16 21.2	16 23.5	16 13.3	17 31.7	15 51.7	18 35.1	15 16.
H. D.	0.8	0.0	0.7	0.1	0.7	0.3	0.6	0.5
	Wednesday 4.		Sunday 8.		Thursday 12.		Monday 16.	
0	−15 12.4	+16 21.2	−16 25.0	+16 13.0	−17 33.1	+15 51.1	−18 36.4	+15 15.3
2	15 14.0	16 21.2	16 26.5	16 12.7	17 34.5	15 50.5	18 37.7	15 14.4
4	15 15.5	16 21.1	16 27.9	16 12.3	17 35.8	15 49.9	18 38.9	15 13.5
6	15 17.1	16 21.1	16 29.4	16 12.0	17 37.2	15 49.3	18 40.2	15 12.6
8	15 18.6	16 21.0	16 30.8	16 11.7	17 38.6	15 48.6	18 41.5	15 11.6
10	15 20.2	16 21.0	16 32.3	16 11.3	17 39.9	15 48.0	18 42.7	15 10.7
12	15 21.7	16 20.9	16 33.7	16 11.0	17 41.3	15 47.4	18 44.0	15 9.8
14	15 23.3	16 20.8	16 35.2	16 10.6	17 42.7	15 46.7	18 45.3	15 8.9
16	15 24.8	16 20.7	16 36.6	16 10.3	17 44.0	15 46.1	18 46.5	15 7.9
18	15 26.4	16 20.7	16 38.1	16 9.9	17 45.4	15 45.4	18 47.8	15 7.0
20	15 27.9	16 20.6	16 39.5	16 9.5	17 46.7	15 44.7	18 49.0	15 6.1
22	−15 29.5	+16 20.5	−16 41.0	+16 9.2	−17 48.1	+15 44.1	−18 50.3	+15 5.1
H. D.	0.8	0.0	0.7	0.2	0.7	0.4	0.6	0.6

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Tuesday 17.		Saturday 21.		Wednesday 25.		Sunday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−18 51.5	+15 4.2	−19 48.1	+14 11.5	−20 39.0	+13 6.2	−21 23.7	+11 49.1
2	18 52.7	15 3.2	19 49.2	14 10.3	20 40.0	13 4.7	21 24.6	11 47.4
4	18 53.9	15 2.2	19 50.3	14 9.9	20 41.0	13 3.2	21 25.4	11 45.6
6	18 55.2	15 1.3	19 51.5	14 7.8	20 42.0	13 1.7	21 26.3	11 43.9
8	18 56.4	15 0.3	19 52.6	14 6.6	20 42.9	13 0.2	21 27.2	11 42.1
10	18 57.6	14 59.3	19 53.7	14 5.3	20 43.9	12 58.7	21 28.0	11 40.4
12	18 58.8	14 58.3	19 54.8	14 4.1	20 44.9	12 57.2	21 28.9	11 38.6
14	19 0.0	14 57.3	19 55.9	14 2.8	20 45.9	12 55.7	21 29.7	11 36.8
16	19 1.3	14 56.3	19 57.0	14 1.5	20 46.9	12 54.1	21 30.6	11 35.1
18	19 2.5	14 55.3	19 58.1	14 0.3	20 47.9	12 52.6	21 31.4	11 33.3
20	19 3.7	14 54.3	19 59.2	13 59.0	20 48.8	12 51.1	21 32.2	11 31.5
22	19 5.0	14 53.3	20 0.3	13 57.7	20 49.8	12 49.5	21 33.1	11 29.8
H. D.	0.6	0.5	0.6	0.6	0.5	0.8	0.4	0.9
	Wednesday 18.		Sunday 22.		Thursday 26.		Monday 30.	
0	−19 6.2	+14 52.3	−20 1.4	+13 56.4	−20 50.8	+12 48.0	−21 33.9	+11 28.0
2	19 7.4	14 51.3	20 2.5	13 55.1	20 51.8	12 46.4	21 34.7	11 26.2
4	19 8.6	14 50.2	20 3.6	13 53.8	20 52.7	12 44.9	21 35.5	11 24.4
6	19 9.8	14 49.2	20 4.7	13 52.5	20 53.7	12 43.3	21 36.4	11 22.6
8	19 11.0	14 48.1	20 5.7	13 51.1	20 54.6	12 41.7	21 37.2	11 20.8
10	19 12.2	14 47.1	20 6.8	13 49.8	20 55.6	12 40.2	21 38.0	11 19.0
12	19 13.4	14 46.0	20 7.9	13 48.5	20 56.5	12 38.6	21 38.8	11 17.2
14	19 14.6	14 44.9	20 9.0	13 47.2	20 57.4	12 37.0	21 39.6	11 15.4
16	19 15.8	14 43.8	20 10.0	13 45.8	20 58.4	12 35.4	21 40.4	11 13.6
18	19 17.0	14 42.8	20 11.1	13 44.5	20 59.3	12 33.8	21 41.3	11 11.8
20	19 18.1	14 41.7	20 12.2	13 43.1	21 0.2	12 32.3	21 42.1	11 9.9
22	19 19.3	14 40.6	20 13.2	13 41.8	21 1.2	12 30.7	−21 42.9	+11 8.1
H. D.	0.6	0.5	0.5	0.7	0.5	0.8	0.4	0.9
	Thursday 19.		Monday 23.		Friday 27.			
0	−19 20.5	+14 39.5	−20 14.3	+13 40.4	−21 2.1	+12 29.1		
2	19 21.7	14 38.4	20 15.4	13 39.0	21 3.0	12 27.5		
4	19 22.8	14 37.3	20 16.4	13 37.7	21 4.0	12 25.8		
6	19 24.0	14 36.2	20 17.5	13 36.3	21 4.9	12 24.2		
8	19 25.2	14 35.0	20 18.5	13 34.9	21 5.8	12 22.6		
10	19 26.3	14 33.9	20 19.6	13 33.6	21 6.8	12 20.9		
12	19 27.5	14 32.8	20 20.6	13 32.2	21 7.7	12 19.3		
14	19 28.7	14 31.7	20 21.6	13 30.8	21 8.6	12 17.7		
16	19 29.8	14 30.5	20 22.7	13 29.4	21 9.5	12 16.0		
18	19 31.0	14 29.4	20 23.7	13 28.0	21 10.4	12 14.4		
20	19 32.2	14 28.2	20 24.7	13 26.5	21 11.3	12 12.7		
22	19 33.3	14 27.1	20 25.8	13 25.1	21 12.2	12 11.1		
H. D.	0.6	0.6	0.5	0.7	0.5	0.8		
	Friday 20.		Tuesday 24.		Saturday 28.			
0	−19 34.5	+14 25.9	−20 26.8	+13 23.7	−21 13.1	+12 9.4		
2	19 35.7	14 24.7	20 27.8	13 22.3	21 14.0	12 7.7		
4	19 36.8	14 23.5	20 28.9	13 20.8	21 14.9	12 6.0		
6	19 38.0	14 22.4	20 29.9	13 19.4	21 15.8	12 4.4		
8	19 39.1	14 21.2	20 30.9	13 18.0	21 16.7	12 2.7		
10	19 40.3	14 20.0	20 32.0	13 16.5	21 17.6	12 1.0		
12	19 41.4	14 18.8	20 33.0	13 15.1	21 18.5	11 59.3		
14	19 42.5	14 17.6	20 34.0	13 13.6	21 19.4	11 57.6		
16	19 43.6	14 16.4	20 35.0	13 12.1	21 20.2	11 55.9		
18	19 44.8	14 15.2	20 36.0	13 10.7	21 21.1	11 54.2		
20	19 45.9	14 13.9	20 37.0	13 9.2	21 22.0	11 52.5		
22	−19 47.0	+14 12.7	−20 38.0	+13 7.7	−21 22.8	+11 50.8		
H. D.	0.6	0.6	0.5	0.7	0.4	0.8		

SEMIDIAMETER.

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Nov. 1	16.15
11	16.19
21	16.22
Dec. 1	16.25

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Tuesday 1.		Saturday 5.		Wednesday 9.		Sunday 13.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−21 43.7	+11 6.3	−22 18.6	+9 33.1	−22 46.5	+7 50.8	−23 7.4	+6 0.8
2	21 44.5	11 4.5	22 19.2	9 31.1	22 47.0	7 48.6	23 7.7	5 58.4
4	21 45.3	11 2.6	22 19.9	9 29.0	22 47.5	7 46.3	23 8.1	5 56.1
6	21 46.1	11 0.8	22 20.5	9 27.0	22 48.0	7 44.1	23 8.4	5 53.7
8	21 46.8	10 58.9	22 21.1	9 24.9	22 48.5	7 41.9	23 8.7	5 51.3
10	21 47.6	10 57.1	22 21.8	9 22.9	22 49.0	7 39.6	23 9.1	5 49.0
12	21 48.4	10 55.2	22 22.4	9 20.8	22 49.5	7 37.4	23 9.4	5 46.6
14	21 49.2	10 53.3	22 23.0	9 18.7	22 50.0	7 35.2	23 9.7	5 44.2
16	21 49.9	10 51.4	22 23.7	9 16.6	22 50.5	7 32.9	23 10.1	5 41.8
18	21 50.7	10 49.6	22 24.3	9 14.6	22 51.0	7 30.7	23 10.4	5 39.5
20	21 51.5	10 47.7	22 24.9	9 12.5	22 51.4	7 28.4	23 10.7	5 37.1
22	21 52.2	10 45.8	22 25.6	9 10.4	22 51.9	7 26.2	23 11.1	5 34.7
H. D.	0.4	0.9	0.3	1.0	0.2	1.1	0.2	1.2
	Wednesday 2.		Sunday 6.		Thursday 10.		Monday 14.	
0	−21 53.0	+10 43.9	−22 26.2	+9 8.3	−22 52.4	+7 23.9	−23 11.4	+5 32.3
2	21 53.8	10 42.0	22 26.8	9 6.2	22 52.9	7 21.6	23 11.7	5 29.9
4	21 54.5	10 40.1	22 27.4	9 4.1	22 53.3	7 19.4	23 12.0	5 27.5
6	21 55.3	10 38.2	22 28.1	9 2.0	22 53.8	7 17.1	23 12.4	5 25.2
8	21 56.0	10 36.3	22 28.7	8 59.9	22 54.3	7 14.8	23 12.7	5 22.8
10	21 56.8	10 34.4	22 29.3	8 57.8	22 54.7	7 12.6	23 13.0	5 20.4
12	21 57.5	10 32.5	22 29.9	8 55.7	22 55.2	7 10.3	23 13.3	5 18.0
14	21 58.3	10 30.6	22 30.5	8 53.6	22 55.7	7 8.0	23 13.6	5 15.6
16	21 59.0	10 28.6	22 31.1	8 51.5	22 56.1	7 5.7	23 13.9	5 13.2
18	21 59.8	10 26.7	22 31.7	8 49.4	22 56.6	7 3.5	23 14.2	5 10.8
20	22 0.5	10 24.8	22 32.2	8 47.2	22 57.0	7 1.2	23 14.4	5 8.3
22	22 1.3	10 22.8	22 32.8	8 45.1	22 57.5	6 58.9	23 14.7	5 5.9
H. D.	0.4	1.0	0.3	1.1	0.2	1.1	0.2	1.2
	Thursday 3.		Monday 7.		Friday 11.		Tuesday 15.	
0	−22 2.0	+10 20.9	−22 33.4	+8 43.0	−22 57.9	+6 56.6	−23 15.0	+5 3.5
2	22 2.7	10 19.0	22 34.0	8 40.9	22 58.3	6 54.3	23 15.3	5 1.1
4	22 3.4	10 17.0	22 34.6	8 38.7	22 58.7	6 52.0	23 15.5	4 58.7
6	22 4.2	10 15.1	22 35.2	8 36.6	22 59.2	6 49.7	23 15.8	4 56.3
8	22 4.9	10 13.1	22 35.7	8 34.4	22 59.6	6 47.4	23 16.1	4 53.9
10	22 5.6	10 11.2	22 36.3	8 32.3	23 0.0	6 45.1	23 16.3	4 51.5
12	22 6.3	10 9.2	22 36.9	8 30.1	23 0.4	6 42.8	23 16.6	4 49.1
14	22 7.0	10 7.2	22 37.5	8 28.0	23 0.8	6 40.5	23 16.9	4 46.7
16	22 7.7	10 5.2	22 38.0	8 25.8	23 1.2	6 38.2	23 17.1	4 44.2
18	22 8.4	10 3.3	22 38.6	8 23.7	23 1.6	6 35.9	23 17.4	4 41.8
20	22 9.1	10 1.3	22 39.1	8 21.5	23 2.0	6 33.5	23 17.7	4 39.4
22	22 9.8	9 59.3	22 39.7	8 19.4	23 2.4	6 31.2	23 17.9	4 36.9
H. D.	0.4	1.0	0.3	1.1	0.2	1.2	0.1	1.2
	Friday 4.		Tuesday 8.		Saturday 12.		Wednesday 16.	
0	−22 10.5	+ 9 57.3	−22 40.2	+8 17.2	−23 2.8	+6 28.9	−23 18.2	+4 34.5
2	22 11.2	9 55.3	22 40.7	8 15.0	23 3.2	6 26.6	23 18.4	4 32.1
4	22 11.9	9 53.3	22 41.3	8 12.8	23 3.6	6 24.2	23 18.6	4 29.6
6	22 12.6	9 51.3	22 41.8	8 10.6	23 4.0	6 21.9	23 18.9	4 27.2
8	22 13.2	9 49.3	22 42.3	8 8.4	23 4.4	6 19.6	23 19.1	4 24.7
10	22 13.9	9 47.3	22 42.9	8 6.2	23 4.8	6 17.2	23 19.3	4 22.3
12	22 14.6	9 45.3	22 43.4	8 4.0	23 5.2	6 14.9	23 19.5	4 19.8
14	22 15.3	9 43.3	22 43.9	8 1.8	23 5.6	6 12.6	23 19.7	4 17.4
16	22 15.9	9 41.2	22 44.4	7 59.6	23 5.9	6 10.2	23 19.9	4 14.9
18	22 16.6	9 39.2	22 45.0	7 57.4	23 6.3	6 7.9	23 20.2	4 12.5
20	22 17.3	9 37.2	22 45.5	7 55.2	23 6.7	6 5.5	23 20.4	4 10.1
22	−22 17.9	+ 9 35.1	−22 46.0	+7 53.0	−23 7.0	+6 3.2	−23 20.6	+4 7.6
H. D.	0.3	1.0	0.3	1.1	0.2	1.2	0.1	1.2

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

G. M. T.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.	Sun's Declination.	Equation of Time.
	Thursday 17.		Monday 21.		Friday 25.		Tuesday 29.	
h	° ′	m s	° ′	m s	° ′	m s	° ′	m s
0	−23 20.8	+4 5.2	−23 26.8	+2 6.2	−23 25.3	+0 6.4	−23 16.2	−1 52.1
2	23 21.0	4 2.7	23 26.8	2 3.7	23 25.2	0 3.9	23 15.9	1 54.5
4	23 21.2	4 0.3	23 26.9	2 1.2	23 25.0	+0 1.4	23 15.6	1 57.0
6	23 21.4	3 57.8	23 26.9	1 58.7	23 24.9	−0 1.1	23 15.4	1 59.4
8	23 21.6	3 55.3	23 26.9	1 56.2	23 24.8	0 3.5	23 15.1	2 1.8
10	23 21.8	3 52.9	23 27.0	1 53.7	23 24.6	0 6.0	23 14.8	2 4.3
12	23 22.0	3 50.4	23 27.0	1 51.2	23 24.5	0 8.5	23 14.5	2 6.7
14	23 22.2	3 48.0	23 27.0	1 48.7	23 24.4	0 11.0	23 14.2	2 9.1
16	23 22.3	3 45.5	23 27.0	1 46.2	23 24.2	0 13.5	23 13.9	2 11.5
18	23 22.5	3 43.1	23 27.1	1 43.8	23 24.1	0 16.0	23 13.7	2 14.0
20	23 22.7	3 40.6	23 27.1	1 41.3	23 24.0	0 18.4	23 13.4	2 16.4
22	23 22.8	3 38.2	23 27.1	1 38.8	23 23.8	0 20.9	23 13.1	2 18.8
H. D.	0.1	1.2	0.0	1.2	0.1	1.2	0.1	1.2
	Friday 18.		Tuesday 22.		Saturday 26.		Wednesday 30.	
0	−23 23.0	+3 35.7	−23 27.1	+1 36.3	−23 23.7	−0 23.4	−23 12.8	−2 21.2
2	23 23.2	3 33.2	23 27.1	1 33.8	23 23.5	0 25.9	23 12.5	2 23.6
4	23 23.3	3 30.7	23 27.1	1 31.3	23 23.4	0 28.4	23 12.2	2 26.0
6	23 23.5	3 28.3	23 27.1	1 28.8	23 23.2	0 30.9	23 11.9	2 28.5
8	23 23.6	3 25.8	23 27.1	1 26.3	23 23.0	0 33.3	23 11.5	2 30.9
10	23 23.8	3 23.3	23 27.1	1 23.8	23 22.9	0 35.8	23 11.2	2 33.3
12	23 23.9	3 20.8	23 27.1	1 21.3	23 22.7	0 38.3	23 10.9	2 35.7
14	23 24.1	3 18.3	23 27.1	1 18.8	23 22.5	0 40.8	23 10.6	2 38.1
16	23 24.2	3 15.9	23 27.1	1 16.3	23 22.4	0 43.2	23 10.2	2 40.5
18	23 24.4	3 13.4	23 27.1	1 13.8	23 22.2	0 45.7	23 9.9	2 43.0
20	23 24.5	3 10.9	23 27.0	1 11.3	23 22.0	0 48.2	23 9.6	2 45.4
22	23 24.7	3 8.5	23 27.0	1 8.8	23 21.9	0 50.6	23 9.2	2 47.8
H. D.	0.1	1.2	0.0	1.2	0.1	1.2	0.2	1.2
	Saturday 19.		Wednesday 23.		Sunday 27.		Thursday 31.	
0	−23 24.8	+3 6.0	−23 27.0	+1 6.3	−23 21.7	−0 53.1	−23 8.9	−2 50.2
2	23 24.9	3 3.5	23 27.0	1 3.8	23 21.5	0 55.6	23 8.5	2 52.6
4	23 25.0	3 1.0	23 26.9	1 1.3	23 21.3	0 58.0	23 8.2	2 55.0
6	23 25.1	2 58.6	23 26.9	0 58.8	23 21.1	1 0.5	23 7.8	2 57.4
8	23 25.2	2 56.1	23 26.8	0 56.3	23 20.9	1 3.0	23 7.4	2 59.7
10	23 25.3	2 53.6	23 26.8	0 53.8	23 20.7	1 5.4	23 7.1	3 2.1
12	23 25.4	2 51.1	23 26.7	0 51.3	23 20.5	1 7.9	23 6.7	3 4.5
14	23 25.5	2 48.6	23 26.7	0 48.8	23 20.3	1 10.4	23 6.3	3 6.9
16	23 25.6	2 46.1	23 26.6	0 46.3	23 20.1	1 12.8	23 6.0	3 9.3
18	23 25.7	2 43.6	23 26.6	0 43.8	23 19.9	1 15.3	23 5.6	3 11.7
20	23 25.8	2 41.1	23 26.5	0 41.3	23 19.6	1 17.8	23 5.2	3 14.0
22	23 25.9	2 38.6	23 26.5	0 38.8	23 19.4	1 20.2	−23 4.9	−3 16.4
H. D.	0.1	1.2	0.0	1.2	0.1	1.2	0.2	1.2
	Sunday 20.		Thursday 24.		Monday 28.			
0	−23 26.0	+2 36.1	−23 26.4	+0 36.3	−23 19.2	−1 22.7		
2	23 26.1	2 33.6	23 26.3	0 33.8	23 19.0	1 25.2		
4	23 26.2	2 31.1	23 26.2	0 31.3	23 18.7	1 27.6		
6	23 26.3	2 28.7	23 26.2	0 28.8	23 18.5	1 30.1		
8	23 26.3	2 26.2	23 26.1	0 26.4	23 18.2	1 32.5		
10	23 26.4	2 23.7	23 26.0	0 23.9	23 18.0	1 35.0		
12	23 26.5	2 21.2	23 25.9	0 21.4	23 17.7	1 37.4		
14	23 26.6	2 18.7	23 25.8	0 18.9	23 17.5	1 39.9		
16	23 26.6	2 16.2	23 25.7	0 16.4	23 17.2	1 42.3		
18	23 26.7	2 13.7	23 25.6	0 13.9	23 17.0	1 44.8		
20	23 26.7	2 11.2	23 25.5	0 11.4	23 16.7	1 47.2		
22	−23 26.8	+2 8.7	−23 25.4	+0 8.9	−23 16.5	−1 49.7		
H. D.	0.1	1.2	0.0	1.2	0.1	1.2		

SEMIDIAMETER.

	′
Dec. 1	16.25
11	16.28
21	16.29
31	16.30

NOTE.—The Equation of Time is to be applied to the G. M. T. in accordance with the sign as given.

No.	Constellation Name.	Right Ascension.													
				Jan. 1.	Feb. 1.	Mar. 1.	Apr. 1.	May 1.	June 1.	July 1.	Aug. 1.	Sept. 1.	Oct. 1.	Nov. 1.	Dec. 1.	Dec. 32.
		h	m	s	s	s	s	s	s	s	s	s	s	s	s	s
1	α Androm.	0	3	56.1	55.7	55.5	55.6	56.2	57.2	58.2	59.2	59.9	60.2	60.2	59.9	59.
2	β Cassiop.	0	4	33.8	33.0	32.4	32.5	33.4	34.7	36.3	37.7	38.7	39.1	39.0	38.3	37.
3	β Ceti	0	39	16.8	16.5	16.3	16.3	16.7	17.5	18.4	19.4	20.2	20.6	20.7	20.4	20.
4	δ Cassiop.	1	20	10.6	9.7	8.9	8.6	9.0	10.2	11.7	13.4	14.8	15.7	16.0	15.8	15.
5	α Urs. Min.	1	27	97.8	65.2	40.1	26.8	31.6	52.7	83.5	118.3	147.8	166.2	170.4	159.1	133.
6	α Eridani	1	34	32.4	31.4	30.6	30.1	30.2	31.0	32.2	33.7	35.0	35.8	36.0	35.6	34.
7	α Arietis	2	2	19.9	19.5	19.1	18.9	19.1	19.7	20.7	21.7	22.7	23.3	23.8	23.8	23.
8	θ Eridani	2	54	61.7	61.1	60.4	59.9	59.7	60.0	60.9	61.9	63.0	63.9	64.4	64.4	64.
9	α Persei	3	18	11.8	11.3	10.5	10.0	9.8	10.4	11.4	12.7	14.2	15.3	16.2	16.6	16.
10	α Tauri	4	30	60.4	60.3	59.9	59.4	59.2	59.3	59.9	60.8	61.7	62.7	63.5	64.1	64.
11	α Aurigæ	5	10	22.1	21.9	21.3	20.6	20.2	20.2	20.9	21.9	23.2	24.5	25.6	26.5	27.
12	β Orionis	5	10	25.8	25.6	25.4	24.7	24.4	24.4	24.7	25.5	26.4	27.2	28.1	28.7	28.
13	γ Orionis	5	20	32.6	32.5	32.2	31.7	31.3	31.3	31.7	32.5	33.4	34.3	35.1	35.8	36.
14	ε Orionis	5	31	52.5	52.4	52.1	51.6	51.2	51.2	51.5	52.2	53.1	54.0	54.8	55.5	55.
15	α Orionis	5	50	32.5	32.5	32.2	31.7	31.3	31.3	31.6	32.3	33.1	34.0	34.9	35.7	36.
16	α Argus	6	22	4.8	4.6	3.8	2.7	1.8	1.2	1.1	1.6	2.6	3.8	5.0	5.9	6.
17	α Can. Maj.	6	41	23.0	23.0	22.7	22.2	21.7	21.4	21.6	22.1	22.8	23.6	24.5	25.4	25.
18	ε Can. Maj.	6	55	16.4	16.5	16.1	15.5	14.9	14.6	14.6	15.0	15.7	16.6	17.6	18.4	19.
19	α Can. Min.	7	34	49.6	49.9	49.7	49.3	48.9	48.6	48.7	49.1	49.7	50.5	51.4	52.3	53.
20	β Gemin.	7	40	5.2	5.6	5.5	5.0	4.5	4.2	4.3	4.7	5.4	6.3	7.4	8.4	9.
21	ε Argus	8	20	47.0	47.2	46.8	45.8	44.6	43.5	42.9	42.8	43.3	44.5	45.9	47.3	48.
22	λ Argus	9	4	51.2	51.7	51.7	51.2	50.6	49.9	49.5	49.4	49.7	50.4	51.5	52.7	53.
23	β Argus	9	12	17.6	18.3	18.0	16.8	15.1	13.4	12.0	11.4	11.7	12.8	14.7	16.8	18.
24	α Hydræ	9	23	22.9	23.5	23.6	23.4	23.0	22.7	22.5	22.5	22.8	23.4	24.2	25.2	26.
25	α Leonis	10	3	48.8	49.6	49.9	49.8	49.5	49.1	48.9	48.9	49.0	49.6	50.3	51.3	52.
26	α Urs. Maj.	10	58	28.5	30.0	30.8	30.7	30.0	29.0	28.1	27.5	27.4	27.9	29.0	30.6	32.
27	β Leonis	11	44	41.2	42.1	42.7	42.9	42.8	42.5	42.2	42.0	41.9	42.0	42.6	43.4	44.
28	α Crucis	12	21	47.6	49.3	50.4	50.9	50.7	50.0	49.1	48.1	47.5	47.3	48.1	49.5	51.
29	γ Crucis	12	26	22.6	24.1	25.1	25.6	25.5	25.0	24.3	23.5	23.0	22.9	23.5	24.7	26.
30	β Crucis	12	42	40.5	42.1	43.2	43.8	43.8	43.4	42.6	41.7	41.1	40.9	41.4	42.7	44.
31	ε Urs. Maj.	12	50	15.9	17.4	18.5	19.1	19.0	18.4	17.6	16.8	16.2	15.9	16.3	17.2	18.7
32	ζ Urs. Maj.	13	20	28.5	30.0	31.1	31.8	31.9	31.5	30.7	29.8	29.1	28.8	28.9	29.7	31.1
33	α Virginis	13	20	39.5	40.5	41.3	41.8	42.0	42.0	41.8	41.5	41.2	41.1	41.3	42.0	43.0
34	θ Centauri	14	1	36.3	37.5	38.5	39.2	39.6	39.7	39.5	39.0	38.6	38.3	38.4	39.1	40.2
35	α Boötis	14	11	44.1	45.1	46.0	46.6	47.0	47.0	46.8	46.4	46.0	45.7	45.7	46.2	47.1
36	α Centauri	14	33	43.9	45.7	47.2	48.4	49.1	49.2	48.7	47.8	46.9	46.2	46.1	47.0	48.5
37	β Urs. Min.	14	50	55.3	57.9	60.3	62.3	63.0	62.5	60.9	58.6	56.1	54.2	53.1	53.3	54.9
38	α Cor. Bor.	15	31	2.1	3.1	4.0	4.9	5.4	5.7	5.6	5.2	4.7	4.3	4.0	4.2	4.9
39	δ Scorpii	15	55	13.7	14.7	15.8	16.7	17.4	17.8	17.9	17.8	17.3	16.9	16.7	16.9	17.7
40	α Scorpii	16	24	6.8	7.8	8.8	9.8	10.6	11.2	11.4	11.2	10.8	10.3	10.0	10.2	10.9
41	α Tri. Aust.	16	39	29.5	31.6	33.9	36.2	38.1	39.3	39.6	39.0	37.6	36.2	35.3	35.3	36.6
42	η Ophiuchi	17	5	25.6	26.4	27.4	28.3	29.1	29.7	30.1	30.0	29.6	29.2	28.8	28.8	29.4
43	λ Scorpii	17	27	44.6	45.6	46.7	47.9	48.9	49.7	50.1	50.2	49.7	49.1	48.7	48.6	49.2
44	α Ophiuchi	17	30	55.4	56.1	57.0	57.9	58.7	59.3	59.6	59.6	59.2	58.7	58.3	58.1	58.5
45	γ Draconis	17	54	34.5	35.2	36.3	37.5	38.6	39.3	39.6	39.2	38.5	37.4	36.5	36.0	36.1
46	ε Sagittarii	18	18	26.5	27.3	28.3	29.4	30.5	31.4	32.0	32.1	31.8	31.3	30.8	30.6	30.9
47	α Lyræ	18	34	0.0	0.5	1.3	2.3	3.3	4.1	4.5	4.5	4.0	3.3	2.6	2.2	2.2
48	σ Sagittarii	18	49	54.8	55.4	56.2	57.3	58.3	59.2	59.8	60.1	59.9	59.4	58.9	58.7	58.9
49	α Aquilæ	19	46	34.1	34.4	35.0	35.9	36.7	37.6	38.3	38.7	38.6	38.2	37.7	37.4	37.4
50	α Pavonis	20	18	49.7	50.0	51.0	52.3	53.9	55.4	56.7	57.4	57.4	56.8	55.9	55.1	54.8
51	α Cygni	20	38	28.1	28.1	28.6	29.5	30.6	31.7	32.5	33.0	32.9	32.3	31.6	30.9	30.4
52	ε Pegasi	21	39	56.9	56.9	57.2	57.8	58.6	59.5	60.4	61.0	61.3	61.2	60.8	60.5	60.2
53	α Gruis	22	2	48.7	48.6	48.9	49.6	50.6	51.9	53.2	54.1	54.6	54.5	53.9	53.3	52.8
54	α Pisc. Aust.	22	52	54.0	53.8	53.9	54.3	55.0	56.0	57.1	58.0	58.6	58.7	58.4	58.0	57.6
55	α Pegasi	23	0	28.0	27.9	27.9	28.2	28.9	29.8	30.8	31.6	32.1	32.2	32.1	31.7	31.4

No.	Declination.													Special Name.	Mag.
	Jan. 1.	Feb. 1.	Mar. 1.	Apr. 1.	May 1.	June 1.	July 1.	Aug. 1.	Sept. 1.	Oct. 1.	Nov. 1.	Dec. 1.	Dec. 32.		
	° ′	′	′	′	′	′	′	′	′	′	′	′	′		
1	+28 37.1	37.0	37.0	36.9	36.9	36.9	37.0	37.1	37.3	37.4	37.4	37.5	37.5	Alpheratz	2.2
2	+58 40.8	40.8	40.7	40.5	40.4	40.4	40.5	40.6	40.8	40.9	41.1	41.2	41.2	Caph	2.4
3	−18 27.6	27.6	27.6	27.5	27.4	27.3	27.1	27.1	27.0	27.1	27.1	27.2	27.2	Deneb Kaitos	2.2
4	+59 47.7	47.7	47.6	47.5	47.4	47.3	47.3	47.4	47.5	47.7	47.8	48.0	48.0	Ruchbah	2.8
5	+88 51.2	51.2	51.2	51.0	50.9	50.7	50.7	50.8	50.9	51.1	51.3	51.4	51.5	Polaris	2.1
6	−57 40.6	40.6	40.4	40.4	40.2	40.0	39.9	39.8	39.8	39.9	40.1	40.2	40.3	Achernar	0.6
7	+23 3.6	3.5	3.5	3.5	3.4	3.5	3.5	3.6	3.7	3.8	3.8	3.9	3.9	Hamal	2.2
8	−40 39.0	39.1	39.0	38.9	38.8	38.6	38.5	38.4	38.3	38.4	38.5	38.6	38.8	Acamar	3.0
9	+49 33.7	33.7	33.7	33.6	33.5	33.4	33.4	33.4	33.5	33.6	33.7	33.8	33.9		1.9
10	+16 20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.5	20.5	Aldebaran	1.1
11	+45 54.9	55.0	55.0	55.0	54.9	54.9	54.8	54.8	54.8	54.8	54.8	54.9	55.0	Capella	0.2
12	− 8 17.9	18.0	18.0	18.0	18.0	17.9	17.8	17.7	17.6	17.6	17.7	17.8	17.9	Rigel	0.3
13	+ 6 16.5	16.4	16.4	16.4	16.4	16.5	16.5	16.6	16.6	16.7	16.6	16.6	16.5	Bellatrix	1.7
14	− 1 15.2	15.3	15.3	15.3	15.3	15.3	15.2	15.1	15.0	15.0	15.1	15.1	15.2	Alnitam	1.8
15	+ 7 23.6	23.6	23.6	23.6	23.6	23.6	23.7	23.7	23.8	23.8	23.7	23.7	23.6	Betelgeux	1.0–1.4
16	−52 38.8	39.0	39.1	39.1	39.0	38.9	38.8	38.6	38.5	38.5	38.5	38.7	38.9	Canopus	−0.9
17	−16 35.7	35.9	35.9	35.9	35.9	35.8	35.7	35.6	35.6	35.6	35.6	35.7	35.9	Sirius	−1.6
18	−28 51.1	51.3	51.2	51.4	51.4	51.3	51.2	51.1	51.1	50.9	51.0	51.1	51.2	Adhara	1.6
19	+ 5 26.8	26.8	26.8	26.7	26.7	26.8	26.8	26.9	26.9	26.9	26.8	26.7	26.7	Procyon	0.5
20	+28 14.1	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.1	14.1	14.0	14.0	14.0	Pollux	1.2
21	−59 13.7	13.9	14.1	14.2	14.2	14.2	14.2	13.9	13.8	13.7	13.7	13.8	14.0		1.7
22	−43 4.9	5.1	5.2	5.4	5.4	5.4	5.3	5.2	5.0	5.0	4.9	5.0	5.2		2.2
23	−69 21.5	21.7	21.9	22.0	22.1	22.1	22.0	21.9	21.7	21.6	21.6	21.6	21.8	Miaplacidus	1.8
24	− 8 17.0	17.2	17.2	17.3	17.3	17.3	17.2	17.1	17.1	17.1	17.1	17.2	17.3	Alphard	2.2
25	+12 23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.1	23.0	22.9	Regulus	1.3
26	+62 12.7	12.7	12.8	12.9	13.0	13.1	13.0	13.0	12.8	12.6	12.5	12.4	12.3	Dubhe	2.0
27	+15 3.0	3.0	2.9	3.0	3.0	3.1	3.1	3.1	3.1	3.0	2.9	2.8	2.7	Denebola	2.2
28	−62 37.1	37.2	37.4	37.6	37.7	37.8	37.9	37.8	37.7	37.6	37.5	37.4	37.5	Acrux	1.1
29	−56 37.7	37.8	37.9	38.1	38.3	38.4	38.4	38.3	38.2	38.1	38.0	38.0	38.0		1.6
30	−59 12.9	13.0	13.2	13.3	13.5	13.6	13.6	13.6	13.5	13.4	13.3	13.2	13.3		1.5
31	+56 25.2	25.2	25.2	25.4	25.5	25.6	25.6	25.6	25.5	25.4	25.2	25.0	24.9	Alioth	1.7
32	+55 22.1	22.0	22.1	22.2	22.3	22.4	22.5	22.5	22.4	22.3	22.1	21.9	21.8	Mizar	2.2
33	−10 42.8	42.9	43.0	43.0	43.1	43.1	43.0	43.0	43.0	43.0	43.0	43.0	43.1	Spica	1.2
34	−35 56.8	56.9	57.0	57.1	57.2	57.2	57.3	57.2	57.2	57.1	57.1	57.1	57.1		2.3
35	+19 37.6	37.4	37.4	37.4	37.5	37.6	37.6	37.7	37.7	37.6	37.5	37.4	37.2	Arcturus	0.2
36	−60 28.6	28.7	28.7	28.9	29.0	29.2	29.2	29.3	29.2	29.1	29.0	28.9	28.9	Rigil Kentaurus	0.1
37	+74 30.0	29.9	29.9	30.0	30.2	30.3	30.4	30.5	30.4	30.3	30.1	29.9	29.8	Kochab	2.2
38	+26 59.9	59.8	59.8	59.8	59.9	60.0	60.1	60.2	60.2	60.1	60.0	59.9	59.7	Alphecca	2.3
39	−22 22.7	22.8	22.8	22.9	22.9	22.9	23.0	22.9	22.9	22.9	22.9	22.9	22.9	Dschubba	2.5
40	−26 14.6	14.6	14.7	14.7	14.7	14.8	14.8	14.8	14.8	14.8	14.7	14.7	14.7	Antares	1.2
41	−68 52.3	52.2	52.2	52.3	52.4	52.5	52.6	52.7	52.8	52.7	52.6	52.5	52.4		1.9
42	−15 37.3	37.3	37.4	37.4	37.4	37.4	37.3	37.3	37.3	37.3	37.3	37.3	37.4	Sabik	2.6
43	−37 2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.8	2.8	2.8	2.7	2.7	2.7	Shaula	1.7
44	+12 37.1	37.0	37.0	36.9	37.0	37.1	37.2	37.3	37.3	37.3	37.3	37.2	37.1	Rasalhague	2.1
45	+51 29.7	29.5	29.4	29.4	29.5	29.7	29.8	30.0	30.1	30.1	30.0	29.9	29.7	Etamin	2.4
46	−34 25.7	25.7	25.7	25.6	25.6	25.7	25.7	25.7	25.7	25.8	25.7	25.7	25.7	Kaus Australis	2.0
47	+38 42.0	41.9	41.8	41.7	41.8	41.9	42.1	42.2	42.3	42.4	42.3	42.2	42.1	Vega	0.1
48	−26 24.4	24.4	24.4	24.4	24.4	24.3	24.3	24.3	24.4	24.4	24.4	24.4	24.3	Nunki	2.1
49	+ 8 38.3	38.2	38.2	38.2	38.2	38.3	38.4	38.5	38.6	38.6	38.6	38.6	38.5	Altair	0.9
50	−57 0.9	0.8	0.7	0.6	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.8	0.7		2.1
51	+44 58.4	58.2	58.1	58.0	58.0	58.1	58.3	58.4	58.6	58.7	58.8	58.7	58.6	Deneb	1.3
52	+ 9 28.8	28.7	28.7	28.6	28.7	28.8	28.9	29.0	29.1	29.1	29.2	29.1	29.1	Enif	2.5
53	−47 22.9	22.9	22.7	22.6	22.5	22.4	22.4	22.4	22.5	22.6	22.6	22.7	22.6		2.2
54	−30 4.9	4.9	4.8	4.7	4.6	4.4	4.4	4.3	4.4	4.4	4.5	4.5	4.5	Fomalhaut	1.3
55	+14 44.6	44.5	44.5	44.4	44.5	44.5	44.6	44.8	44.9	44.9	45.0	45.0	44.9	Markab	2.6

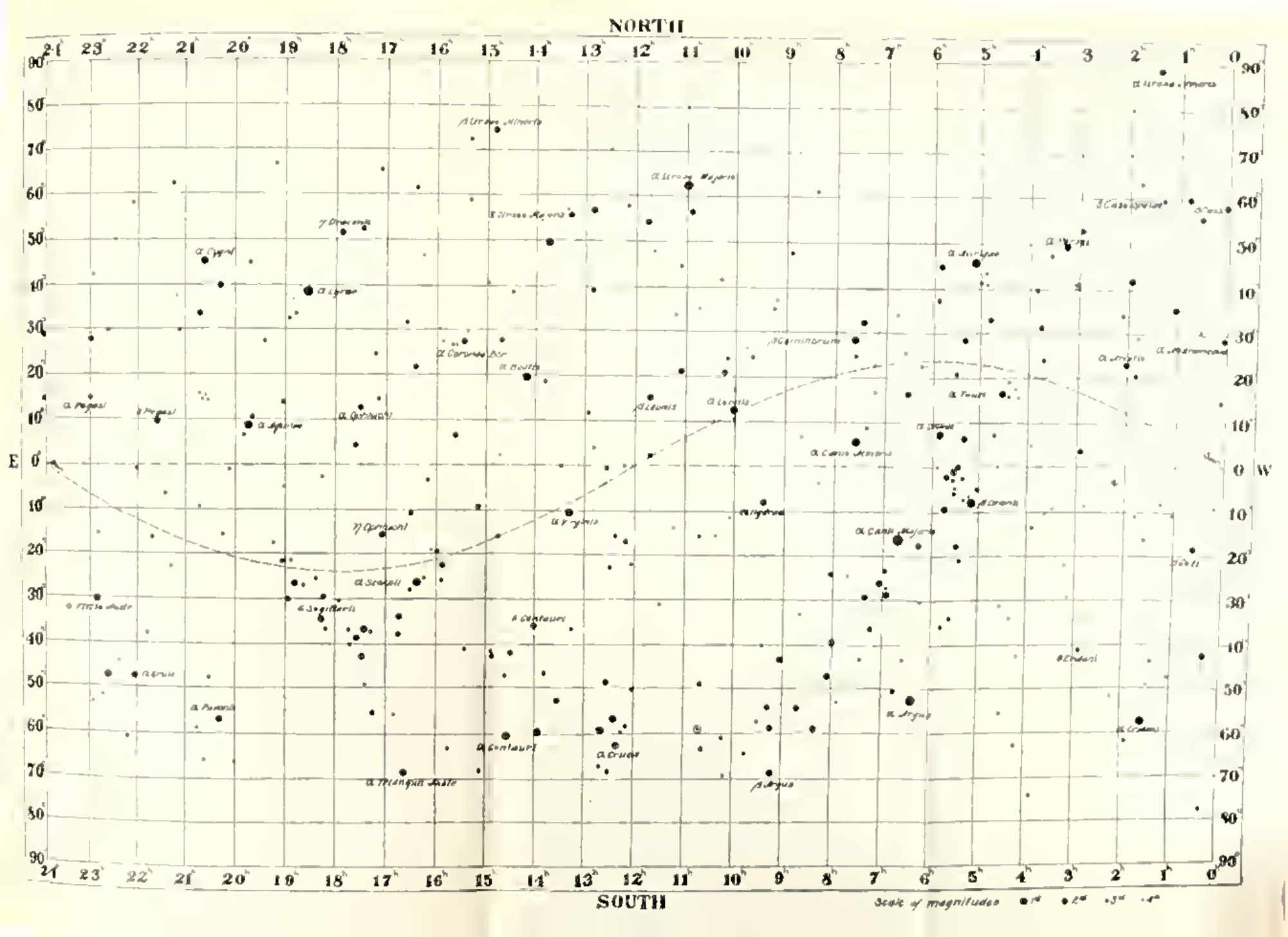
GREENWICH MEAN TIMES OF TRANSIT AT GREENWICH.

Constellation Name.	Mag.	Jan. 1.	Feb. 1.	Mar. 1.	Apr. 1.	May 1.	June 1.	July 1.	Aug. 1.	Sept. 1.	Oct. 1.	Nov. 1.	Dec. 1.
		h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h
α Androm.	2.2	5 22	3 20	1 30	23 24	21 26	19 24	17 26	15 24	13 23	11 25	9 23	7 2
β Cassiop.	2.4	5 23	3 21	1 30	23 25	21 27	19 25	17 27	15 25	13 23	11 25	9 23	7 2
β Ceti	2.2	5 57	3 55	2 5	{0 3 / 23 59}	22 1	19 59	18 2	16 0	13 58	12 0	9 58	8
δ Cassiop.	2.8	6 38	4 36	2 46	0 44	22 42	20 40	18 42	16 40	14 39	12 41	10 39	8 4
α Urs. Min.	2.1	6 46	4 44	2 53	0 51	22 49	20 48	18 51	16 49	14 48	12 50	10 48	8 5
α Eridani	0.6	6 52	4 50	3 0	0 58	22 56	20 54	18 57	16 55	14 53	12 55	10 53	8 5
α Arietis	2.2	7 20	5 18	3 28	1 26	23 24	21 22	19 24	17 23	15 21	13 23	11 21	9 2
θ Eridani	3.0	8 12	6 11	4 20	2 19	0 21	22 15	20 17	18 15	16 13	14 15	12 13	10 1
α Persei	1.9	8 36	6 34	4 44	2 42	0 44	22 38	20 40	18 38	16 36	14 38	12 37	10 3
α Tauri	1.1	9 48	7 46	5 56	3 54	1 56	23 51	21 53	19 51	17 49	15 51	13 49	11 5
α Aurigæ	0.2	10 28	8 26	6 36	4 34	2 36	0 34	22 32	20 30	18 28	16 30	14 28	12 3
β Orionis	0.3	10 28	8 26	6 36	4 34	2 36	0 34	22 32	20 30	18 28	16 30	14 28	12 3
γ Orionis	1.7	10 38	8 36	6 46	4 44	2 46	0 44	22 42	20 40	18 38	16 40	14 38	12 4
ε Orionis	1.8	10 49	8 47	6 57	4 55	2 57	0 55	22 53	20 51	18 50	16 52	14 50	12 5
α Orionis	1.0–1.4	11 7	9 6	7 15	5 14	3 16	1 14	23 12	21 10	19 8	17 10	15 8	13 1
α Argus	−0.9	11 39	9 37	7 47	5 45	3 47	1 45	23 43	21 41	19 40	17 42	15 40	13 4
α Can. Maj.	−1.6	11 58	9 56	8 6	6 4	4 6	2 5	0 7	22 1	19 59	18 1	15 59	14
ε Can. Maj.	1.6	12 12	10 10	8 20	6 18	4 20	2 18	0 20	22 15	20 13	18 15	16 13	14 1
α Can. Min.	0.5	12 52	10 50	9 0	6 58	5 0	2 58	1 0	22 54	20 52	18 54	16 52	14 5
β Gemin.	1.2	12 57	10 55	9 5	7 3	5 5	3 3	1 5	22 59	20 57	18 59	16 58	15
ε Argus	1.7	13 37	11 35	9 45	7 43	5 45	3 44	1 46	23 40	21 38	19 40	17 38	15 4
λ Argus	2.2	14 21	12 19	10 29	8 27	6 29	4 28	2 30	0 28	22 22	20 24	18 22	16 2
β Argus	1.8	14 29	12 27	10 37	8 35	6 37	4 35	2 37	0 35	22 29	20 31	18 29	16 3
α Hydræ	2.2	14 40	12 38	10 48	8 46	6 48	4 46	2 48	0 46	22 40	20 42	18 41	16 4
α Leonis	1.3	15 20	13 18	11 28	9 26	7 28	5 26	3 28	1 27	23 21	21 23	19 21	17 2
α Urs. Maj.	2.0	16 15	14 13	12 23	10 21	8 23	6 21	4 23	2 21	0 19	22 17	20 15	18 1
β Leonis	2.2	17 1	14 59	13 9	11 7	9 9	7 7	5 9	3 7	1 5	23 3	21 2	19
α Crucis	1.1	17 38	15 36	13 46	11 44	9 46	7 44	5 46	3 44	1 42	23 40	21 39	19 4
γ Crucis	1.6	17 42	15 40	13 50	11 48	9 50	7 49	5 51	3 49	1 47	23 45	21 43	19 4
β Crucis	1.5	17 59	15 57	14 7	12 5	10 7	8 5	6 7	4 5	2 3	0 5	21 59	20
ε Urs. Maj.	1.7	18 6	16 4	14 14	12 12	10 14	8 12	6 14	4 13	2 11	0 13	22 7	20
ζ Urs. Maj.	2.2	18 36	16 34	14 44	12 42	10 44	8 43	6 45	4 43	2 41	0 43	22 37	20 3
α Virginis	1.2	18 36	16 35	14 44	12 43	10 45	8 43	6 45	4 43	2 41	0 43	22 37	20 3
θ Centauri	2.3	19 17	17 15	15 25	13 23	11 25	9 24	7 26	5 24	3 22	1 24	23 18	21 2
α Boötis	0.2	19 27	17 26	15 35	13 34	11 36	9 34	7 36	5 34	3 32	1 34	23 28	21 3
α Centauri	0.1	19 49	17 47	15 57	13 55	11 57	9 56	7 58	5 56	3 54	1 56	23 50	21 5
β Urs. Min.	2.2	20 6	18 5	16 15	14 13	12 15	10 13	8 15	6 13	4 11	2 13	0 11	22
α Cor. Bor.	2.3	20 46	18 45	16 55	14 53	12 55	10 53	8 55	6 53	4 51	2 53	0 51	22 4
δ Scorpii	2.5	21 11	19 9	17 19	15 17	13 19	11 17	9 19	7 17	5 15	3 17	1 15	23 1
α Scorpii	1.2	21 39	19 37	17 47	15 46	13 48	11 46	9 48	7 46	5 44	3 46	1 44	23 4
α Tri. Aust.	1.9	21 55	19 53	18 3	16 1	14 3	12 1	10 3	8 1	5 59	4 1	2 0	{0 / 23
η Ophiuchi	2.6	22 21	20 19	18 29	16 27	14 29	12 27	10 29	8 27	6 25	4 27	2 25	0 2
λ Scorpii	1.7	22 43	20 41	18 51	16 49	14 51	12 49	10 51	8 49	6 47	4 49	2 48	0 5
α Ophiuchi	2.1	22 46	20 44	18 54	16 52	14 54	12 52	10 54	8 52	6 51	4 53	2 51	0 5
γ Draconis	2.4	23 10	21 8	19 18	17 16	15 18	13 16	11 18	9 16	7 14	5 16	3 14	1 1
ε Sagittarii	2.0	23 33	21 32	19 41	17 40	15 42	13 40	11 42	9 40	7 38	5 40	3 38	1 4
α Lyræ	0.1	23 49	21 47	19 57	17 55	15 57	13 55	11 57	9 55	7 54	5 56	3 54	1 5
σ Sagittarii	2.1	0 9	22 3	20 13	18 11	16 13	14 11	12 13	10 11	8 9	6 11	4 10	2 1
α Aquilæ	0.9	1 5	22 59	21 9	19 7	17 9	15 8	13 10	11 8	9 6	7 8	5 6	3
α Pavonis	2.1	1 37	23 32	21 41	19 40	17 42	15 40	13 42	11 40	9 38	7 40	5 38	3 4
α Cygni	1.3	1 57	23 51	22 1	19 59	18 1	15 59	14 1	11 59	9 58	8 0	5 58	4
ε Pegasi	2.5	2 58	0 56	23 2	21 1	19 3	17 1	15 3	13 1	10 59	9 1	6 59	5
α Gruis	2.2	3 21	1 19	23 25	21 23	19 25	17 24	15 26	13 24	11 22	9 24	7 22	5 2
α Pisc. Aust.	1.3	4 11	2 9	0 19	22 13	20 15	18 13	16 16	14 14	12 12	10 14	8 12	6 1
α Pegasi	2.6	4 19	2 17	0 27	22 21	20 23	18 21	16 23	14 21	12 19	10 21	8 19	6 2

CORRECTIONS TO BE APPLIED TO THE MEAN TIME OF TRANSIT ON THE FIRST DAY OF THE MONTH, TO FIND THE MEAN TIME OF TRANSIT ON ANY OTHER DAY OF THE MONTH.

Day of Month.	Correction.	Day of Month.	Correction.	Day of Month.	Correction.
	h m		h m		h m
1	−0 0	11	−0 39	21	−1 19
2	0 4	12	0 43	22	1 23
3	0 8	13	0 47	23	1 27
4	0 12	14	0 51	24	1 30
5	0 16	15	0 55	25	1 34
6	−0 20	16	−0 59	26	−1 38
7	0 24	17	1 3	27	1 42
8	0 28	18	1 7	28	1 46
9	0 31	19	1 11	29	1 50
10	0 35	20	1 15	30	1 54
11	−0 39	21	−1 19	31	−1 58

NOTE.—If the quantity taken from this table is greater than the mean time of transit on the first of the month, increase that time by $23^h\ 56^m$ and then apply the correction taken from this table.


NORTH
SOUTH
E
W
Scale of magnitudes